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AN ADDRESS

Delivered at the Commencement Exercises of Cooper Medical College, December 6, 1892.

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The General Training of the Physician.

It is a matter of common observation that the various elements in the educational fabric of America are not in any proper sense parts of an educational system. Each kind of school has developed in its own way, in response to a special demand, or in furtherance of some educational tradition. Our colleges are English in blood and ancestry, our universities German. Our academies are children of the colleges, and our high schools and professional schools are for the most part wholly distinct in their origin and native to our soil. They have arisen in obedience to the law of supply and demand, and their methods and ideals are often wholly at variance with those of the colleges.

There have been some good results arising from these conditions. The progress of evolution is most rapid where the chains of tradition are weakest. These chains have been strongest in our colleges, and of all our schools our colleges have been until lately the least progressive. The chains of tradition have been weakest in our professional schools, but all that they have gained in freedom has been more than lost by their separation from other educational agencies. The bad results of our lack of correlation have been numerous and positive. Among these have been the general weakness of the whole system and a prodigious waste of strength throughout its parts. Much of the best of the educational thought of the day is devoted to the work of bringing together and properly dove-tailing the scattered parts of our system. To consider a single one of these problems, the relation of medical education to the college education, is the purpose of the present paper.

The Bachelor's Degree, as generally understood, is an index of general culture, the gauge of that degree of training which fairly prepares a bright man to enter upon professional work. The colleges have as a rule regarded this standard as a low one rather than a high one, and with the improvement of our educational methods, the requirements for this degree have been steadily advanced. Better work and more of it is necessary for graduation with each succeeding class. The result of this is, that the student who has spent all his life in the schools is not through college and ready to begin his professional studies much before the age of twenty-two, while the man who is forced by any reason to interrupt his school work may be anywhere from twenty-five to thirty years on graduation.

This fact has led to a demand for the shortening of the college course in the interests of practical life. The medical faculty of Harvard University have led in this demand, in the interest of professional studies, and the question of reducing the college course from four years to three, has become a subject of general discussion. It is of course evident that there is no special virtue in four years of work, as opposed to three or to five or any other particular number, nor is there any universal agreement at present as to the separation of the work of the colleges from that of the high school or academy. That the standard of requirement for admission at Harvard is unusually high may be in itself a valid reason for lowering the requirements for graduation in Harvard. In that case, however, the discussion of the question would practically concern Harvard University alone.

But viewing the subject from the side of the student of medicine, this question is before us: Is the college course too long? That it is so, is practically the verdict of the medical schools as well as of the great body of physicians themselves. The medical colleges have made the preliminary training a matter of luxury rather than of necessity, by putting into the same classes under the same instruction the graduates of colleges and persons who come from the country district school. If general culture be essential to professional success, the medical college should say so to those who would enter its doors. So far as any official action in most of our medical colleges is concerned, the illiterate boor, if he can sign the matriculation book is as ready for medical education as the most accomplished college graduate.

The physicians of our country say the same thing, for the number of college-bred men in medicine is lower than in almost any other profession. Statistics furnished me by Prof. Richard G. Boone show that in the United States at present, about one clergyman in four, one lawyer in five, and one physician in twelve, has had a college education. Connected with the lack of preparatory training on the part of medical students, there are certain recognized facts, one of which is this. Taking the country over, of all classes of students, those in medicine are as a rule (though such a rule admits of many individual exceptions) the most reckless in their mode of life and the most careless of the laws of hygiene and of decencies in general of any class of students whatsoever. This is not so true now as it was a few years ago. In the Cooper Medical College it is doubtless not true at all. For this change the rising standards of our medical schools are certainly responsible. This change results directly from making it more difficult for uncultivated men to win the doctor's degree, and indirectly from bringing better men into the field as competitors. Already there is a good deal of crowding at the bottom of the stairs in the profession, and in view of this fact the scramble for the name of doctor is somewhat abating.

A concerted effort is now being made to raise the standard of the profession of medicine by raising the general culture of physicians. Its purpose is to make medicine a worthy branch of applied science, and its votaries men to whom the word science is not an empty name. It has been a frequent reproach to the medical profession that physicians are not doing their part in this age of scientific investigation and discovery, in a time when the boundaries of knowledge are widening in every direction at a rate of progress never before known.

It is said that although their work brings them into daily contact with the very subjects over which the battles of science are being waged, they know nothing of the struggle and have no share in the victory. Right in the path of the physician lie the great problems of the nature of heredity, of psychology, histology, sociology, criminology—the manifold problems of all the laws of life. Individual physicians have found out many things—much more than the world outside has recognized; but the profession at large is not interested in these matters. Although not one of these problems is alien to the daily work of any physician, the average practitioner neither knows what is already known, nor what is yet to be found out.

It has been said that in America we have but one learned profession: that of engineering. The statistics above quoted help to bear out this statement. Empiricism may do for the lawyer, the preacher, the physician, the teacher, the politician; it will not do for the engineer. You may trifle with political, material, mental, bodily or spiritual interests, and no one may ever know it. The complexity of the conditions insures your escape. You can not fool with the forces of nature. For the law which brings the untrained engineer to failure is as inexorable as the law of gravitation, and its operations cannot be hidden. The failure of the untrained man in any other profession is just as certain, but it is not so sure that the world will find him out.

If our physicians be deficient in general culture, and if it be true that they are not taking their share in the progress of science, may not these facts be associated? May we not have here the relation of cause and effect? What then is the remedy? Is it not this? Bring in better men; shut out from the medical profession the ignorant, trifling and unambitious, the tinker and the job-worker, and reserve the training of our medical schools for those who can bring to their work the instincts, the traditions, and the outlook of the scholar.

A writer has lately maintained that a man without independent means should not study medicine. The physician can no longer be sure of earning his living in our cities on account of the competition of the free dispensaries. Whether the free dispensary be a wise charity or not is perhaps an open question. But surely the skilful physician has a field which the free dispensary cannot invade. The physician we dream of is something more than the automatic dispenser of drugs. Skill and wisdom will always be valued and paid for. The thoroughly trained man fears no competition, for it is by measurement with others that his value can be estimated.

For the training which shall enable the medical student to enter on his professional work in the spirit of science and of scholarship, we must look to the college. To give this breadth and skill, to fit men and women to enter with large views and trained minds on the work of life the college exists. The general culture of the physician should have its roots in the work of the college. The amount and the kind of culture regarded by the colleges in general as essential to the highest professional success, they have roughly estimated by their requirements for the degree of bachelor of arts. This degree or its equivalent has been taken by the American Academy of Medicine as its standard of admission to membership. Some measure of culture is better than no measure, however fluctuating the standard may be, and this is the only measure which is furnished by the colleges themselves. If we require or recognize collegiate attainments at all, the Bachelor's Degree furnishes the only available method by which general culture may be indicated.

It is very easy to see that this standard is not absolute; that it means in one college something different in kind as well as in amount from that which obtains in another. Its meaning to-day is not what it was ten years ago nor what it will be ten years hence. Much time has been spent in tabulating the different elements involved in the requirements for this degree in the different American colleges. The results are unsatisfactory, for the value of the degree is not to be determined by the percentage of required work in Greek, Latin, German, nor in any of the sciences. The school which shows the greatest amount of required work in any particular subject may be the very one where the least of this work is really done. The freedom of the elective system gives in any line of work the greatest possibilities. But the very fact of freedom prevents its results from appearing in a table of percentages. The essential fact is, the extent to which the spirit of the scholar has been inspired in the student, and this varies in every case with the differences of teacher and scholar. "Colleges can only serve us," says Emerson, "where their aim is not to drill but to create, when they gather from far every ray of genius to their hospitable halls and by the concentrated fires set the heart of their youth on flame." So this fluctuation is inherent in the nature of things. It is well that it should be so, and that its variations should be greater rather than less, for its maximum indicated the unrestrained influence of great teachers. There are men in some of our colleges, under whom a single year's study is better than many years of ordinary drill.

Moreover, America is a broad land and yields nourishment for many different educational ideals. In many cases, too, the variations in the requirements for a degree are more apparent than real, for the difference of subjects pursued in a college course is a very small matter as compared with the question whether the best years of youth are spent in mental training, in the demands of trade, or in fruitless idleness.

Is this standard of the Bachelor's Degree too high for the best results in professional work? In other words, is the physician who has waited to secure his bachelor's degree thereby handicapped in his professional life? Has he lost a year or two, which in this hurrying age he can never regain? I cannot think so, and I am sure that no such view could be sustained by statistics. Are the members of the American Academy less successful than their brother physicians? Is the college degree which they bear, the mark of those who have fallen behind in the active work of the physician? To state this question is to answer it. The broadest outlook on nature and human life goes with the highest professional success. The educated physician is the man of science. The uneducated physician is the empiric, the quack.

But as I have said our medical schools seem to think otherwise, for in most of them the requirement for entrance, so far from being that of college graduation, is far less than that required even for entrance into the college. If general training be important, the schools should insist upon it. That it is not necessary in their judgment is, apparently, shown by the requirements for admission.

This condition of things, I believe, has two causes—the one discreditable to the profession, the other to the colleges. In the first place most of our medical schools are scantily endowed, or else are purely private ventures. It has been for them a business necessity to demand not the preparation they want, but that which they can get. In other words, they have been forced to cater to the desire of ignorance and impatience to take part in the honor and emoluments of the medical profession. For the same reason the standard of graduation has been kept low. A high standard would diminish the sale of the lecture tickets. The character of the profession has been lowered that the medical college may be self-supporting, for not to support itself in part at least means to close its doors. I do not mean to depreciate this class of medical schools, for many of our best teachers of medicine have belonged to them and have given their instruction in the intervals of an active practice.

But this is not the ideal medical school, for no school can be effective until it exists for its work alone—instruction and investigation with no ulterior end whatever. Its teachers should never have to look to the interests of the cash account, and its examiners should never be forced to say that black is white at the demand of an empty treasury. The medical schools of the future will be sustained as necessary parts of university work, and the freedom of the university professor will be the right of the teacher of medicine. The medical school has the same claim for support that other professional schools should have. They have the same claim on the interests of the wealthy friends of education. In the West and in the South, where colleges and the lower schools are alike maintained at the public expense, the medical schools have the same claim for State support that is awarded to other parts of the public school system.

When a medical school is well endowed, or has the State behind it, it can exact the standards the good of the profession requires. Till then it is at the mercy of the demands about it. Its students are the product of its surroundings, not the choice of the school itself.

That the proper training of teachers is a matter of real economy has been recognized by every State in the Union, and this fact has led to the establishment of the State Normal Schools. We recognize that thorough professional training is the best antidote to educational quackery and fraud. It is cheaper for the people to pay for the education of the teachers, and then to pay the teachers an increased salary because they are educated than it is to depend on the hap-hazard training furnished by the law of supply and demand.

There was a time when to be fit for nothing else was the chief requisite for the schoolmaster. But experience has shown that such teaching is the costliest of all. It has shown that one teacher worth two hundred dollars a month is more effective for educational advancement than ten who find their proper level at forty or fifty. As with teaching so with all other professions. Cheap work is never good.

It is often said in the West, and this statement is applauded by our farmers and mechanics, the very men who should know better, that the state should not support schools for the making of physicians and lawyers. The people should not be taxed to help young men into these easy professions already so overcrowded.

Let us state this proposition in another form: Shall the state demand that the lawyers, doctors, surveyors, and architects which serve its people should know their business? Why not? Have we not had enough of the work of frauds and fools? The money wasted each year in California on quacks and quack medicines would educate every physician in the State who has the brains to bear education.

Bring in better men. There is no more effective way of thinning out incompetent men in any profession than to bring trained men in competition with them. If the state could require each physician or lawyer to know what a physician or lawyer ought to know, the quacks and pettifoggers would disappear as surely as an army of tramps before a stone pile. This country is now their paradise. These professions are overcrowded in America simply because they are no professions at all. It requires no more training to be admitted to the bar in most of our states than to be admitted to the saw-buck.

Not long ago the University of Berlin refused to recognize the degree of Doctor of Medicine from an American school as a degree at all. It is easy to see a reason for this. In our best schools the total educational requirement for this degree is lower than in Berlin. In our worst schools it may fall seven years behind.

American physicians are often among the most skilful in the world, but this comes through individual capacity and through that native ingenuity with which every American is blessed, rather than from any requirement of the schools.

It was my fortune some three years ago to meet that which in Europe is regarded as a typical American physician, one who was taught by nature and not by the schools. He was, therefore, regarded by the people of rural England with a reverence which the man of training often fails to inspire. It was in the solemn and decorous village of Stratford-on-Avon that I met this physician. Riding on a gilded circus wagon attired in a cowboy's splendid uniform, with a band of musicians dressed as cowboys and stained as Indians, this man was going through England selling from the wagon, that famous remedy of the Kickapoo Indians, known as August Flower. It cures every disease known to that country side by the simple purification of the blood. In one day in Stratford-on-Avon he won back for America all the money the Americans have spent on the shrine of Shakspeare within the past 300 years; and on Sunday evening I saw him installed in the famous parlors in the ancient Red Horse Inn at Stratford, sacred to the memory of Washington Irving, as the one American there worthy to dine within its historic walls.

A medical student killed himself in New York the other day, leaving behind him these words: "I die because there is room for no more doctors." Overcrowded, poor fellow, smothered by the weight of the mass of his fellow incompetents, and all this while the science of medicine stands on the verge of the greatest discoveries since the time of Galen and Æsculapius. "Room for no more doctors," just now when the theory of evolution begins to throw its electric light down thousands of avenues closed to the fathers of medicine; "room for no more doctors," when the germ theory is working its revolution in surgery, obstetrics, and in the treatment of contagious diseases; "room for no more doctors," when a thousand applications of antiseptics and anesthetics are yet to be made, or made in better ways; "no more doctors," when with the discoveries of each succeeding year it is more and more ulterior end whatever. Its teachers should never have to look to the interests of the cash account, and its examiners should never be forced to say that black is white at the demand of an empty treasury. The medical schools of the future will be sustained as necessary parts of university work, and the freedom of the university professor will be the right of the teacher of medicine. The medical school has the same claim for support that other professional schools should have. They have the same claim on the interests of the wealthy friends of education. In the West and in the South, where colleges and the lower schools are alike maintained at the public expense, the medical schools have the same claim for State support that is awarded to other parts of the public school system.

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There is always a place for doctors; but only for men of the nobler sort. Their profession is not overcrowded. "There is always room for the man of force and he makes room for many."—(*Emerson.*) The overcrowd is outside the profession. The great majority of our physicians have had only the commonest of school advantages. What wonder that so much of the world is a sealed book to them? Men who, as Myron Reed used to say, "do not read bound books," cannot share in the advancement of science.

I do not mean to depreciate in any way the work of the many who are really great on the records of the noblest of all professions. Of our best we have the right to be proud. It is only when we regard the amount of ignorant, empirical and dishonest work called professional that the record grows dark and we doubt whether our American system of medical *laissez-faire* can be a wise one.

Only by the requirement of training can our professions be restored to their ancient respectability. Their work must rest on a basis of science. A man who has spent years with the great jurists will not sell his soul for a twenty-five dollar fee to the first scoundrel who would use him. The scientific physician does not prostitute his skill in any of the hundred ways condemned by the code of ethics. A true man cannot be used for base purposes. *Noblesse oblige*, and professional training implies professional honor. Only the highest standards can purge the profession of parasites and quacks; only honest knowledge can save us from the christian scientist and the almanac. But in every demand the people make, the state must furnish the means for satisfaction.

As I have already said, there has been another reason why the medical student has shunned the college, namely, the tremendous waste involved in the old-fashioned, prescribed course, or for that matter in any course of study inflexibly prearranged. This waste is three-fold. The time spent on subjects in no wise concerned with the future studies of the student, thoughts which form no part of his culture; second, the time spent on subjects for which the student has no aptitude, from which he derives not the strength gained by mastery, but only the aversion felt for the unwelcome task, and third, and greatest of all, the waste of subjects taught by dull teachers, dry, dreary or mechanical, from whom the student received nothing, because there was nothing in them to give.

Those of us who have been through the prescribed course of the college, have run the gauntlet of all these parasites on higher education. Only he who is familiar with the life of college boys can realize the great waste connected with work in wrong subjects under wrong teachers, and no one can estimate the number who have been repelled from the college by one or both of these evil influences. Many of those who remained to the end did so because their college lives were spent in the atmosphere of good-fellowship, not because they were attracted by their teachers or the work they were set to do.

If our medical schools cede four years to the culture of the colleges, they have the right to ask that the colleges waste no time. They cannot ask any particular curriculum or any special order of studies. They can only ask for the student the freedom of choice which shall enable him to steer clear of deficient teachers, and to work in fields from which he may in later life expect to reap a harvest. The college should furnish such means of study that the future student shall not go to the medical school ignorant of the use of the scalpel and the microscope. Cats are abundant and cheap. The elementary facts of anatomy can be learned from them in college far better than in the dissecting room of the special school where advanced work should be done, instead of the bungling efforts of beginners who do not know a vein from a tendon.

The college course should also teach the medical student the general facts and theory of chemistry and the processes of chemical manipulation. The elements of botany and of vegetable and animal physiology should be in his possession, the facts of comparative anatomy and the great laws of life, of heredity, variability, functional activity, and response to external stimulus which form the basis of organic evolution. He should know a bacterium when he sees it, and should know how to see it. He should have heard of the correlation and conservation of forces; in short, he should know what is meant by scientific investigation, and in some degree have caught the inspiration of it. The physician should, moreover, learn to write and speak good English. Besides this he ought to, he *must*, read French and German. Other languages will not hurt him, nor will a knowledge of literature, philosophy or history.

Such a course of study as is here contemplated is actually provided in the undergraduate department of several of our universities, notably at Cornell and Johns Hopkins, in both of which colleges it is known as the medical preparatory course. It is, however, a course of general culture, not a technical or professional course. This course, or its equivalent, is to be recognized as a condition of entrance in the new medical school of Johns Hopkins University. No more important movement has been taken toward raising the standard of medical education in America than this recognition by Johns Hopkins University of the necessity of scientific and literary culture as a requisite for professional training.

But all that he wants, the student cannot get in a four years' college course, no matter how fully he may crowd it. The whole time is little enough if every moment be saved. But four years is far too long if it is made a time for dawdling and cramming, and for merely going through the motions of study. Let the college permit the medical student to get a fair return for every hour he spends, and the requirement of a college degree at the door of the medical school will shut out no worthy man, nor will it hold back any in the race for life.

Nor need the medical school fear that it will suffer through the neglect of the college to furnish the necessary training. Let the collegiate course be required as a requisite to the professional degree, and the inexorable law of the survival of the fittest will eliminate every waste teacher and every waste subject from the college course for the student preparing for work in medicine.

But I do not wish to lay a disproportionate stress upon the college diploma. It is at the best a temporary thing, a mere mile stone, convenient to measure from so long as it is in sight. The world, it has been said, "cares little for the baby badge," though it will never cease to care for the culture that ought to be behind it.

Some day our students will need the badge no longer, and the Bachelor's Degree, with college honors and prizes and other playthings of our educational childhood, will be laid aside forever. All these things are forms, and forms only, and our higher education is fast outgrowing them. In the great schools of the future, of America, the characteristic will be freedom. The boundary line between general and professional education will be broken down to the advantage of both. We shall have the "school where any person can have instruction in any study," and the study of the humanities need not end where the study of the human body is begun. Let each come who will and let each take what he can, and let the ideals be so high that no one will imagine that he is getting where he is not. Scholars can be made neither by driving nor by coaxing. In any profession the inspiration and the example of educated men is the best surety that the generation which succeeds them will be likewise men of culture.

AN ADDRESS.

Being the Valedictory delivered at the Commencement Exercises of Cooper Medical College, December 6, 1892.

By HENRY GIBBONS, JR., M. D., Professor of Obstetrics and Diseases of Women and Dean Cooper Medical College, San Francisco, California.

Ladies and Gentlemen: Our meeting here to-night is a thrice pleasurable one; pleasurable alike to the professors who witness the fruition of their labors and look forward to some short respite from college duties; to the members of the graduating class who have reached the goal of their present ambition and now crown their long period of study with the doctorate; and we hope to the indulgent friends who grace the occasion with their presence.

But, answering for the faculty, a deeper emotion must move us when we contemplate the responsibilty we assume in testifying to the capacity and qualifications of these graduates, and in authorizing them to enter upon the practice of our profession. The occasion is thus a serious as well as a pleasurable one, and it is fitting that we should solemnize it with appropriate ceremony.

The faculty has had no misgivings in granting to these candidates the privileges of the diploma. Let me present some facts in corroboration. Few who have not investigated the subject can form an adequate conception of the amount of study and labor necessary for the attainment of the degree in medicine, and few, I imagine, are fully informed of the great advances in the science and art of medicine accomplished in the last decades, of the improved methods and increased facilities for teaching, and of the successful efforts made to elevate the standard of medical education.

The first medical school established in the western world was that of the University of Pennsylvania, at Philadelphia, in 1765. It has been in continual existence since that date, and is now one of the leading colleges of the country. Much of the education that the medical student received at that early date, or even fifty years ago, or less, was from a preceptor. The student rode about with the physician visiting his patients, and thus became familiar with the diseases of the locality and their ordinary treatment. Meanwhile he read his text books and received, in addition, such instruction as the physician had time, opportunity or capacity to impart. This instruction, covering a year's time, was at an earlier period usually accepted in lieu of a course of lectures. Thereafter attendance upon one course of lectures of four months' duration completed the education and entitled the student to examination for the degree. It will be seen that the entire time at college requisite to secure the degree was but four months. In the more populous and older parts of the country two courses of lectures in as many years were exacted; but it is within the experience of men now living that the lesser requirement only was exacted by the colleges of newer settled communities.

Less than thirty years ago no college of the country required more than one year's preceptorship and two courses of lectures of four months each, and this was the requirement of the predecessor of Cooper Medical College when I first became connected with it. Although a few of the 130 medical colleges of the United States increased their curriculum over ten years ago, the increase has come almost entirely within the last decade. Let us see how great has been the advance since that time.

In 1870 this college lengthened its two terms to five months each. In 1879 a third term was added. In 1886 a winter term of four months, besides the three terms of five months each, was required, and one year ago another month was added to the regular term, so that whereas in 1864 eight months of didactic lectures in two years entitled the student to examination for the degree; now twenty-one months in three years, are required, or an increase of 162½ per cent. Nor is this all. Ever anxious that our graduates shall reflect credit upon their *alma mater* and be fully worthy of the title we confer, we have already adopted a four year curriculum to take effect a year hence.

Twenty years ago no educational restriction existed to bar the entrance of even the ignorant upon the study of medicine, at any medical college in the country; now, an educational qualification is required by nearly all. The effect has been to materially raise the average intelligence of the classes. A large proportion of those now presenting themselves for registration are graduates of literary universities or colleges, or of high or normal schools, or at least have taken partial courses in such institutions. All others are subjected to examination. Quite a number of the latter are induced to pursue preparatory studies before entering upon that of medicine.

What have been the causes of this great awakening in the direction of medical education throughout the land? for the whole country has been aroused. Few schools now remain which require but two years of study, and they must soon submit to the general demand for advance in this respect. The causes are no doubt many, but we look with pride to the part which the profession of our noble state has taken toward the accomplishment of the result. It was here that the ball was set in motion, which, gathering force as it rolled onward, became irresistible and triumphant.

Sixteen years ago, in the centennial year, the physicians of San Francisco determined to make some effort to suppress or diminish the quackery which prevailed so extensively in our midst. They caused to be drafted a bill prohibiting the practice of medicine by those unqualified, and otherwise regulating the practice of medicine, which, being presented to the Legislature, became a law. This was the little ball which our far western State set in motion. In no other State of the Union was there a similar law at that time. Although poorly executed, the operation of the law was salutary. Many ignorant and incompetent and evil minded men were obliged to leave the city and State. Other States appreciating the benefits, soon adopted similar laws, and the ball moved faster.

At the present time almost every State in the Union has a Medical Practice Act, some of them, fortunately, more efficient than our Legislature was willing to give us. Among these is specially to be noted the law of Illinois, which has been efficiently administered and well sustained by the Courts. It is said that upon the enactment of this law 900 incompetent and uneducated men who were practising within the borders of Illinois were obliged to perfect themselves in medicine, cease practising, or leave the State. But it was not the sole aim of the laws to debar from practice the incompetent. They sought to prevent the entrance upon the study of medicine of the incompetent and ignorant, and to secure better opportunities and longer periods of study for those admitted. To California, then, I claim is due the credit of inaugurating this movement which has done more to advance the cause of medical education in the last ten years, than was accomplished in the fifty years before. Well may the early movers in this direction congratulate themselves upon the result. Among them no one is more deserving of praise than the Vice-President of this college, our physician-lawyer, Edward R. Taylor, who drafted the law, and mindful of his first love, medicine, has so earnestly striven for its maintenance and effectiveness.

The last half century has wonderfully enlarged, broadened and systematized the science and art of medicine. Some of its original subdivisions have grown until they could scarcely be recognized by the physicians who practised at the beginning of the present century; and they would be lost in amazement in contemplating the many new subdivisions that have been elaborated. Old fields have yielded many new discoveries; new fields have been found and explored. Diseases which were undescribed and unknown have been carefully investigated and made familiar to us, until now, thanks to some enterprising French investigator, the human family has 2,500 diseases to choose from.

The great advances in the natural sciences, notably chemistry and physics, have added many new and exact methods of examination to our armamentarium. We are not now required to determine disease solely by exterior signs, but can inspect and explore the interior of organs. The clinical thermometer, stethoscope, laryngoscope, ophthalmoscope, speculum, and many more instruments are now our every day assistants in investigating disease. Their use has become an art, which by experience only can be acquired. Nothing more seems needed to indicate the breadth and extent of the subject of medicine to-day, nor the amount of labor that must be expended in the acquisition of a knowledge of it. In every field of inquiry the student of to-day has vastly more to learn than formerly. Let me trace for you in brief the work that must be accomplished in this college.

Should the student enter the short or winter course of three months' duration, his introduction to medicine is gradual. Ten or twelve lectures a week only are given, in order to afford ample time for the practical study of anatomy, which is the foundation for the study of both surgery and medicine. In the following June the active work of the year begins. He must then attend from four to six lectures daily—aggregating 600 in the six months' term, besides dissecting in the mornings, attending several quizzes in each week, writing up his notes of lectures, and reading in his spare moments. He closes the year with eight written examinations, upon as many subjects, each occupying from two to four hours. In his second year to this work is added attendance upon clinics. At the hospital and college fifteen hours a week are spent in this duty. Here he witnesses the various forms of disease, the methods of examination and treatment of patients, and operations. An examination similar to that of the first year closes the work of the second. The short term of the third year closes with an elaborate examination. The long term is a repetition of the amount of work of the second year, but is varied by giving it more practical features. The student not only witnesses the examination and treatment of patients, but *makes* such examination himself and suggests the treatment and performs the minor operations. A fourth examination upon fourteen subdivisions crowns the three years' work and determines the decision as to whether it has been well or poorly done.

It was in former years considered a standing reproach to American medical education that so short a time was required for obtaining the degree. That reproach, in so far as the better colleges of the country are concerned, is no longer valid. The third year is now required, and soon a fourth will be added. An examination of the amount of study obligatory here and in Europe shows little difference. It is readily demonstrated that more work is actually required in the three years of study in this college than in four years in the colleges of England.

Thus have the graduates whom we introduce to you to-night pursued their arduous labors; thus have they passed their ordeal; thus have they justly acquired their right to the title conferred upon them. It remains for you to sanction our work and encourage these beginnings. I turn them over to your tender mercies.

But before leaving this topic let me revert to the subject of a preliminary educational requirement. A good education, especially in a scientific direction, is an invaluable stepping stone toward success in the study of medicine. Every year corroborates this statement. Every year demonstrates to us the fact that the student with good preliminary educational qualifications acquires, comprehends and retains more readily and passes more satisfactory examinations. While a large proportion of our matriculates are well prepared—and this proportion is constantly increasing—too many who present themselves are but scantily supplied. We look to you—the people—and to the physicians of the State, to aid us in this direction. If there be any within your knowledge who are contemplating the study of medicine, urge upon them the importance of a proper preliminary education.

My remarks would not be complete nor would I be following the time-honored custom, did I not add some parting words to you of the graduating class, who now close your long term of pupilage with us.

Your earnestness, diligence and zeal in this, your probationary period in medicine, have won for you our high regard. We welcome you to the ranks of the noblest of all professions. But we greet you as students still, for all must be such who hope to attain success and preferment. There must be no drones in the hive. You will probably ever recognize this occasion as a most important epoch in your lives. From it you will look back upon the past with satisfaction, and you will look into the future with expectancy and hope. You have just accomplished a difficult and tedious journey, but while at times it may have been tiresome and laborious, it has not been without its pleasures and enjoyments. Your journey has often been by broad and well-traveled roads, but again by rough and devious paths, or through almost untrodden fields. Great obstacles which seemed almost insurmountable have opposed your progress, but by steady perseverance you have overcome them. Perhaps an occasional slough of despond has well nigh tempted you to abandon the undertaking.

But frequently has your pathway been through green fields and by rippling waters, that made the heart rejoice; beautiful flowers have dotted the hillsides and the plain, to entice you onward, and even the sloughs have yielded their pure lilies; with sunshine and shadow, and rain, has the landscape been varied. In your journey, hills have succeeded hills, and even mountains have been scaled. You have at last reached a commanding eminence and can look back upon the route you have pursued. The once formidable obstacles have dwindled into insignificance, but before you tower higher aclivities to tempt your ambition. You have as yet but climbed the foothills of the mountain range of science. Peak upon peak is presented to view, and to surmount each must require a separate effort. The task is before you. To the earnest, the faithful, the daring, there is no such word as fail.

Probably the one dominant thought of the recent graduate is: "Shall I attain success in the practice of medicine?" Let me ask: "What is his measure of success?" Is it learning; is it reputation; is it position; or is it wealth? It is not given to many of our profession to accumulate wealth in the practice of medicine. The vast majority must be content with securing a competence—a comfortable living; and this is almost certainly obtainable by faithful, earnest, honest work. Success is not worthily measured by money value. He who makes it his leading aim is rarely an ornament to the profession. He may achieve his ambition; he may obtain notoriety, but rarely reputation. Let, however, learning and skill be the measures, then with diligence and conscientious application, reputation is almost assured, and following in its train as a natural result are generally to be found position and competence. Let the physician be but true to himself and true to his profession and he cannot utterly fail. Let him but ennoble his profession and it will reciprocate an hundred fold: Truly fortunate and justly honored is he who attains learning, reputation, position, and wealth. Surely is his measure full.

It must be admitted that success in life depends upon a variety of conditions, among which the personal equation is of great importance; but if I were asked what condition or characteristic is of most importance, I should place above all, the capacity and the willingness for work. Not erratic, desultory, and interrupted work, but steady, earnest, thorough application. Not work for a few hours a day, nor for eight hours or ten, or for the day alone, but for the night as well. He must indeed learn

> "To scorn delights and live laborious days,"

who would win fame or riches. Since the capacity for work necessitates a sound and vigorous body as well as mind, it is of the greatest importance that the health should be preserved. With good intelligence, a vigorous mind, and a robust physique, what limit can be put upon the acquisition of knowledge? Cultivate the virtues of self-denial, frugality, and temperance. Let labor and rest, study and sleep, be healthfully alternated and regulated.

I once heard a physician assert that the normal condition of an enterprising American was to be in debt. That debt was an incentive to exertion, a stimulus to work and to accumulate. I should be loth to accept such a proposition. But, that fixity of purpose, that the possession of some definite end and aim, and object for accomplishment, concentrates the energies, stimulates endeavor, develops and ennobles character, cannot be denied. I am not now advising the selection of specialties in medicine. Such selection should come only after some years of general practice, when the whole field has been more or less explored, when the experience has been enlarged in all directions, and the judgment matured. Then only can a proper selection be intelligently made; but meanwhile the tendency, if any exist, is to be noted and developed. Singleness of purpose and energy in its pursuit, must crown your efforts with success.

Do you need examplars? You will find them in every avocation—and in none more frequently than in our loved profession. The great names of those who have gone before are embalmed in the very tissues of our bodies; they are found in the volumes which portray their laborious and painstaking investigations and discoveries; they are engraved upon the tablets of our hearts and in the material monuments which they have erected and endowed. You need no better exemplar of the beneficent result of fixity of purpose and energy in its pursuit, than is found in the honored President of this College, who thirty years ago said, "I will build a college," and behold these substantial walls have risen in full fruition of this determination.

The world has seen its ages of iron and of gold, but though these metals are more abundant than ever before, this is rather an age of books. The rapid succession of their publication even upon individual branches of the science of medicine is appalling to the busy practitioner who can hope to read but a moiety of their number. Fortunately the great mass is but repetition, presented in different phraseology. In like manner medical magazines in the last thirty years have increased remarkably in number as well as in excellence. It is perhaps fortunate for the young physician, though he may not believe it at the time, that he is not harrassed in the earlier years of his practice by numerous patients, and can thus devote much time to study. Let me advise you not to be persuaded into discursive reading by a multiplicity of material. Choose a few magazines and standard works, and study them systematically. While it is most wise to read up on each case that presents itself for treatment, systematic reading in other directions is of vital importance. Do not attempt to cover too broad a field. You cannot hope to compass it all. There are few Admirable Crichtons. The story is told of a certain physician that his library consisted of one book—the United States Dispensatory—but his thoroughness of acquaintance with it was phenomenal.

I desire to utter a warning against the danger of habits, not of dissipation or of idleness, or other personal habits (some of which are often the bane of physicians, and which without care they may readily contract), but habits of practice. It is true that much of ordinary practice is routine work, but without thought and reading, the groove will widen to include all. Avoid all hobbies. If by chance you should get astride of one do not ride it to death. Choose neither extreme—the orthodox or conservative, the radical or fanciful. The former is often antequated; the latter dangerous and uncertain. Do not discard the old because it is old, but because a better is presented. Do not adopt the new for novelty's sake. The history of drugs in this respect is a curious and instructive one. Time and again some new medicament has sprung into reputation like a brilliant meteor, and has disappeared almost as suddenly; or like a great comet has for a brief period filled the world with its glory, but like the fixed stars of the firmament our opium and mercury and quinine remain forever. Of the vast number of new remedies that have been introduced even in my short day I can recall comparatively few which have met the hopes of their advocates, or have found an abiding place in our materia medica. Be alert and progressive. The world does not remain stationery. If you stand still you will soon be left behind, and your opportunity be lost forever.

Cultivate habits of observation; they are essential in the determination of disease. In my childhood I was much impressed with a story called "Eyes and No Eyes." Two boys took a lengthy walk. One returned tired and spiritless. He had seen nothing but some fields and trees and a dusty road. The other recounted with enthusiasm the many beauties and industries of nature that he had witnessed. It would be an herculean task to enumerate the many directions in which observation might be profitably extended. Preventive medicine is more and more largely attracting the attention of the scientific world. If there be truth in the old adage that an ounce of prevention is worth a pound of cure, then should it receive more consideration than the treatment of disease. The special subjects of Hygiene, Sanitation, Quarantine, Epidemics, Endemics, Meteorology, and many others will deserve your careful investigation.

The physician stands in peculiar relation to the public and to the family. To both his duties are grave and responsible. The community looks to him for advice and counsel toward the averting of epidemics, the improvement of sanitary methods, and in hygienic matters generally; and in these directions his knowledge and experience should be freely and willingly given for the general welfare. In the family the physician is more than simply the adviser in sickness. His coming is often the one ray of sunshine to enliven and to cheer. He is expected to quiet the fears of the anxious; to encourage the weak and despondent, and be patient with the querulous and complaining. He must be the comforter of the afflicted and sorrowing; the counsellor of the wayward; the confidant of the erring. His high office combines those of minister and parent, friend and guide. Constantly the recipient, from weak and erring human nature, of confidences which both morality and law instruct shall be held inviolate, his is the power to recall many a false step, to redeem many an otherwise wasted life.

What should be the character of one worthy of this exalted position? Above all it should be moral, honest, manly. Charity, patience, cheerfulness and firmness should exist in wholesome combination. It should be sympathetic, but not weak, for weakness impairs the judgment; willing to admit mistake, but never vacillating, for vacillation destroys confidence; firm and positive, but not dogmatic; courageous when danger appals, but never rash, remembering that true courage comes from fullness of knowledge.

In a recent address upon a similar occasion to the present, and of which I have seen but the following extract, the Hon. Thomas F. Bayard said: "It has been my fortune to be thrown in contact with not a few medical men who have been as the 'salt of the earth' in their respective communities. A man who is already eminent by reason of his natural endowments, may be said to double his talent by becoming a physician. It has been my personal fortune to know such a man. It has been my privilege and delight to accompany him in visits where his only medicines were the personal presence and conversation of the man himself. He had shared and had lessened their anxieties; counselled the wayward; cheered the weak-hearted; had rejoiced with them that rejoiced, and wept with the weeping. And I have seen such a man, so surrounded by an atmosphere of love and trust, holding, as it were, the heartstrings of a family in his hands, their guide, philosopher, and friend; and then I realized what a moral force in society the profession, properly comprehended and properly followed, was capable of exerting; and how relatively small a part of its usefulness was the administration of medicine."

We may not attain this high ideal. We may even fall far short of the excellence it indicates, but though we reach it not we can approach it more or less completely if we but accept the advice of Pollonius to his son:

> "This above all: To thine own self be true,
> And it must follow as the night the day,
> Thou cans't not then be false to any man."

920 Polk street.

ON THE IMPORTANCE OF EXAMINATION AND FLUSHING OF THE GENITAL TRACT DIRECTLY AFTER LABOR.

By ALEXANDER DUKE, F. R. C. P. I., etc., Cheltenham, England; ex-Assistant Master Rotunda Hospital and Gynecologist to Steevens Hospital, Dublin.

It will, I think, be generally admitted by obstetricians that considerable injury may occur to the genital tract during the course of any labor unobserved, and often remain undiscovered till long afterwards. My object in writing this short paper is to call attention to the value of examination, both visual and tactile, in addition to flushing of the parturient canal directly after labor, as a preventive treatment of puerperal septicemia.

We all know the difficulty when septic symptoms arise of determining with certainty the cause. If such cases had been examined at the conclusion of the labor we should at least have had the satisfaction of being able to know whether any breach of surface did exist. We should also be enabled to treat the same at once, and so by the "method of exclusion" shut off one of the most common sources of danger prevalent. In all cases which I have seen in consultation with general practitioners where septic symptoms were undoubtedly present, I was able to discover one cause at least, viz., breach of surface either in the cervix uteri, the vaginal walls, or perineum, through which, in my belief, the morbid secretions gained admission, were absorbed and thus poisoned the patient's system. On the old established principle of "prevention better than cure," I maintain it will be safer for the patient in all cases both of labor and miscarriage to flush the uterus and vagina, and then examine for any injury done. We are then in a position to do something in time and not wait for septic symptoms to develop, when it is more than probable our efforts to cure may be thwarted or be too late.

No examination of the genital canal is made, as a rule, directly after labor, and if the perineum is intact it is then concluded that all is well when considerable injury may have taken place, or when even an inch higher in the vagina a large torn surface may exist. Washing out the uterus with plain hot water (110° F.), the water having been previously boiled, will remove some of the sources of danger and leave the parts concerned in a much better condition for subsequent visual examination. The debris removed by the flushing will, I think, satisfy the attendant that the proceeding was not only justified, but advantageous. The hot fluid stimulates the patient, producing uterine contraction, cleansing the uterine cavity and vagina, and last, but not least, leaving the practitioner's mind at rest by his knowing certainly that nothing which should come away was left behind. The facility with which the flushing and examination can be made directly after labor and before the binder has been applied, is certainly a strong argument in its favor. No objection will be raised by the patient. The parts being relaxed and the os open there will be no difficulty in inserting the tube of syringe, and as there can be no obstruction to the return current, the thorough cleansing of the parts will be a much less difficult matter and far less irksome to both patient and attendant than if demanded later on. The quantity of debris removed by the flushing will surprise any one who has not previously adopted the plan, and this even in cases where there was no difficulty whatever with the delivery of the placenta.

I may allude in this connection to what I consider the mischievous plan adopted by many midwives, and I may add practitioners, of making a rope of the membranes. This has not been condemned as yet, I regret to say, by any of the text-books or manuals on the subject with which I am acquainted, The fact of not knowing to a certainty whether the membranes have been completely extruded; the rotation of the placenta twisting the membranes up to the portion held by the cervix, brings on uterine contraction. The portion of membranes which have not left the uterus are gripped tightly by the os and cervix. The twisting is continued till the membranes part, often leaving a considerable portion behind, setting up after-pains, which, if not sufficient to expel the offending portion, allow it to become a source of extreme danger to the patient by subsequent decomposition. A laceration of the cervix may also be present, and a decomposing piece of membrane lie in contact for days with this open surface, all of which can be prevented by the timely flushing of the uterine cavity, and the repair or cauterization (according to severity) of any breach of surface then found. The advantages of this procedure have compelled me to adopt it as a routine treatment in all cases of labor or miscarriage.

I first flush the whole genital canal and then make both tactile and visual examination for any injury done. Torn surfaces are brought together with carbolized catgut sutures and dusted with boric acid or iodoform. Slight tears are cauterized with strong carbolic acid, and subsequently painted with a mixture of "Friar's balsam" and collodion. I thus consider I give the best chance to my patient and save my mind a good deal of unnecessary anxiety.

Should septic symptons have developed before the case has been seen, I flush, examine for broken surfaces, and, if found, cauterize then and there, and thus prevent the further ingress of morbid matter. I direct the uterus to be syringed at least twice daily with equal parts of peroxide of hydrogen and hot water. The patient is then placed on teaspoonful doses of sulphurous acid every two hours till the odor of sulphur is perceptible in the exhalations. By this means I certainly consider I have had the satisfaction of saving several cases, and can recommend with confidence a trial of such treatment.

THE TREATMENT OF ABORTION.

By W. E. BATES, M. D., Davisville, Cal.

The term abortion is limited to the loss of an impregnated ovum before the fourth month of gestation; miscarriage to the loss of an ovum between the fourth and seventh months, and premature birth to the loss of an ovum from the seventh month and before the ninth. This paper deals only with the former, *i. e.*, the loss of an ovum before the fourth month.

The women in this section of the country have learned through an old "granny," that an abortion can usually be brought on by rolling a piece of stiff brown paper into a taper and then introducing it into the uterus. When this is ineffectual they assist it by taking "tansy wafers," so conspicuously advertised in the daily papers. The result is, that I am seldom without a case on hand. During the past four years I have had 53 cases, and have not lost one.

The treatment as instituted is as follows: Having first determined that an abortion is inevitable, and that the os is not dilated sufficiently to allow the ovum to pass, the patient is given a hot vaginal antiseptic douche, washing out the vagina thoroughly by moving the nozzle of the syringe around so as to distend the parts, and is then placed in Sim's position. A carbolized solution of alum is then made, in which are dipped and then wrung out, two or three wads of prepared wool, each about the size of an egg. This is well packed around and in front of the os uteri, after the introduction of Sim's speculum. Below this are stuffed strips of iodoform gauze, about an inch in width, with which the vagina is tightly packed until nearly full. If fully packed urination is interfered with. This tampon is allowed to remain about twelve hours, and during this time the patient is given half a drachm each of the fluid extract of ergot and cotton-root every three hours. At the end of that time, upon removal of the tampon, the ovum and decidua are usually found just without the uterus. If, however, such be not the case, and the ovum or any part of the decidua is still retained, I never hesitate to dilate and remove the contents of the uterus. If the ovum has escaped and the os has contracted so you cannot sweep the cavity of the uterus with the index finger, to be certain that the whole decidua has passed, dilatation should be resorted to.

The method of procedure is as follows: The hands must be thoroughly washed with soap, and then soaked in a hot bichloride solution for eight or ten minutes. The Goodell parallel dilators have previously been placed in a hot 5 per cent. carbolic solution, together with a pair of heavy uterine forceps, tenaculum forceps, and Sim's speculum. When all is ready, the patient is placed in the Sim's position on the edge of the bed, and the speculum introduced, the posterior lip of the os uteri grasped firmly with the tenaculum and pulled pretty well down. The speculum and tenaculum are given to an assistant, who sits on the edge of the bed, the dilator introduced and gradually opened to its fullest extent. If the pain becomes too great for the patient to well stand, dilatation can be suspended for a few moments and then gradually resumed, until the desired size is reached. The dilator is then removed, and the ovum with its decidua pulled out with the uterine forceps. The cavity of the womb is swept over by the index finger and any remaining particles of decidua peeled off and, together with all blood clots, removed. This portion of the operation is greatly facilitated by having the cervix well dilated, and by taking the tenaculum from the assistant and drawing the uterus well down, so that the fundus can readily be reached.

The future success of the case greatly depends upon removing every vestige of the decidua, and the endometrium should feel smooth throughout. After thoroughly emptying the uterus the speculum is withdrawn, the patient placed on a bed-pan, and with the aid of a recurrent uterine irrigator the womb is flushed with a warm 1:2000 bichloride solution. The irrigator is withdrawn, the tenaculum removed, and a hot bichloride vaginal douche given. The patient is then dried and cleansed from any blood stains about her body, and again placed in Sim's position and tamponed as before. This dressing is removed in 24 hours, and the patient kept in bed for five days. Usually the following prescription is given to insure proper resolution:

℞—Ext. Ergotæ, Fl. ---------------------------------- ℥i
Aletris Cordial ---------------------------------- ℥ii—M.

S. ʒi three times daily, after meals.

In addition, if there has been much loss of blood, two 3-gr. Blaud's pills are given three times daily.

Most of my practice is in the country, yet I do not hesitate to tampon a woman and drive ten miles or so to town, as I have become perfectly satisfied that all alarming hemorrhages can be checked when the tampon is properly applied, either before or after the abortion. I have never had any hemorrhage after the ovum and decidua were removed as described above. There is never any fever after the operation, unless decomposition with elevation of temperature has already set in, and then it subsides almost immediately upon the removal of the ovum and decidua and irrigation of the uterus. Ordinarily the patient will express herself as feeling perfectly well 24 hours after the operation.

MEMORANDA.

Dislocations at the Shoulder Joint.

From January 1, to October 20, 1892, thirty-seven cases of luxation at the shoulder joint were treated in the San Francisco Receiving Hospital. These were all simple—that is, either subglenoid or subcoracoid. At the beginning of the year, I resolved to make a thorough trial of Wocher's method of reducing shoulder dislocations by manipulation, and the results have been so satisfactory that it has been adopted as the routine practice at the hospital. The method was demonstrated to the assistant surgeons, and they were requested to give it a fair trial in all cases that came under their care. It is to be regretted that an accurate account of each case was not kept, but on recent inquiry the surgeons all express themselves as well satisfied, and report only one or two cases in which severer measures had to be used. Of nine of the above cases which came under my own care, one proved obstinate. This was in a very powerful man, whose arm could not be manipulated satisfactorily, on account of muscular resistance. In fat and muscular subjects the necessary movements are somewhat difficult to carry out, but on the whole, experience shows that the method is easy, rapid and safe. The steps are as follows: The patient being on his back on the floor, and the opposite unaffected shoulder held down firmly —(1) Adduct the arm to the body and draw down the elbow, flexed at a right angle. (2) Rotate outwards till the forearm touches the floor. (3) Maintaining the external rotation, carry the elbow to the sternum. (4) Place the hand upon the opposite shoulder.

GEO. B. SOMERS, M. D.,

San Francisco, California.

REPORTS FROM THE HOSPITALS AND ASYLUMS OF THE PACIFIC COAST.

SOUTHERN PACIFIC COMPANY'S HOSPITAL, SACRAMENTO.

UNDER THE CARE OF T. W. HUNTINGTON, M. D.

Extirpation of Cecum and Intestinal Anastomosis by Senn's Method.

J. F——, aged 55; laborer; was admitted to the Southern Pacific Company's Hospital October 18, 1892. For nearly a year he had complained of pain in the right inguinal region, together with obstinate constipation and occasionally with threatened obstruction. On examination there was found a movable, painful tumor, of the size of a small orange, occupying the seat of the cecum. Prior to coming to the hospital he had been under thorough treatment without relief. A diagnosis of cancer of the cecum was made. The operation of intestinal anastomosis by means of bone plates was thought to be adapted to the condition. The patient consented to any operation that might be considered proper. On October 28, 1892, under ether, the abdomen was opened in the median line and the diagnosis verified. The disease was confined to the cecum and about three inches of the ascending colon. As intestinal anastomosis only was intended, a loop of the small intestine was attached by means of bone plates to the transverse colon, openings in each having first been made. On further examination, the portion of the gut involved in the diseased process was found to be movable, and, as an after-thought, the extirpation of the mass was determined upon. Accordingly, the ileum and colon were in turn cut across and the ends carefully closed, invaginated, and the invaginated portion securely held in place by a row of silk sutures. The mesentery of the cecum was next ligated piecemeal, the cancerous mass finally removed, and the abdominal wound closed. The patient's condition was excellent throughout the operation, which lasted one and three-quarter hours. For thirty-six hours the case progressed favorably. The patient then began to vomit, sank rapidly, and died at the end of seventy-two hours.

Autopsy.—There was no general peritonitis. The condition at point of anastomosis was excellent; union of the peritoneal surfaces was complete and the circulation through the artificial opening was perfect. Along the mesentery of the cecum, the edge of which was engaged in strong ligatures, strangulation had occurred, causing gangrene of the distal portions. This gave rise to an unfortunate septic condition, and there was a small collection of purulent fluid in that part of the abdominal cavity formerly occupied by the cecum. This was undoubtedly the cause of death.

Remarks.—The fault in this operation unquestionably lay in the ligation of large masses of the mesentery. Had the mesentery been cut across and only bleeding points tied in the usual manner, the chances of recovery would undoubtedly have been greatly enhanced. Furthermore, it is quite possible that if drainage had been secured by an opening in the loin, the outcome might have been more favorable.

DEPARTMENTS.

OBSTETRICS, GYNECOLOGY AND PEDIATRICS.

By WALLACE A. BRIGGS, M. D., Sacramento, Cal., and

HENRY GIBBONS, JR., M.D., Professor of Obstetrics and Diseases of Women, Cooper Medical College, San Francisco, Cal.

Lysol in Gynecology and Obstetrics.—An editorial in the *Medical and Surgical Reporter*, June 18, 1892, presents the claims of lysol as a germicide. Experiments show that in a ⅓ of 1 per cent. solution it is equal in efficacy to a 5 per cent. solution of carbolic acid, and 2 per cent. solution of creolin. Recent tests of the drug at Dr. Martin's Institute, in Berlin, incline to the belief that it is an ideal antiseptic for gynecological and obstetric practice. It is soluble, active, non-poisonous, non-corrosive, and cheap. In 1 per cent. solutions it may be used for the hands, the instruments, and the parts. According to Pée the only symptoms following the use of a 1 per cent. solution were slight burning and itching of the skin. Dr. Pée reports that in the Berlin obstetric clinic lysol has been used in 550 cases, including 300 cases of childbirth and 200 abortions. In 23 cases of septic abortion, removal of the septic matter, followed by the use of a 1 per cent. lysol solution, brought the temperature down to normal in 24 hours. The directions given for the aseptic toilet with lysol are as follows: The hands and arms of the operator should be washed in 1 per cent. warm solution of lysol for two minutes, and thoroughly scrubbed; the nails should then be most carefully cleansed and the hands again washed in a similar solution for two minutes, and the nail-brush used again. The genitalia should be washed in the same solution, which may also be injected if necessary.

Sulphate of Copper in the Treatment of Endometritis.—Numerous antiseptics, in the form of crayons, are used in endometritis. Some of them, like iodoform, are of signal service, but are slow in action. Others, notably chloride of zinc, work more rapidly, but their employment is dangerous on account of the eschars they produce in the uterine cavity. Chloride of zinc seemed for some time, to be the specific *par excellence*, for endometritis; but its action is too radical, and it sometimes destroys, rather than heals the uterine membrane, and its use is now abandoned by most gynecologists. M. Dumontpallier, in a communication to the Academy of Medicine, recommends sulphate of copper as a therapeutic agent, at once rapid in action and harmless to the uterine mucosa. He advises that it be introduced into the uterus as a crayon, composed of one part sulphate of copper to one part of rye flour; the length of the crayon to be determined by the length of the cervical canal. A pencil 7½ centimetres in length weighs 1 gramme, and contains 50 centigrammes of sulphate of copper, a quantity sufficient, if left in the uterus several hours, to produce superficial cauterization and destroy the septic elements in the glandular *culs-de-sac.* This new method has been used in the clinics and hospitals of Bordeaux with the best results, but nevertheless, two cases occurring in the clinic of M. Eugene Monod, in which its use was followed by severe uterine colic, and eschars similar to that produced by chloride of zinc, would indicate that it is not a remedy wholly without danger. Dr. Monod advises that it be used in smaller quantities, in pencils that contain cgm. 25 of sulphate of copper instead of 50.—*Gazette de Gynécologie*, September 1, 1892.

Fibroid Tumors of the Uterus.—DR. JOHN HOMANS records his experience in 520 cases in fifteen years, whence he infers that the disease is common. Their growth is slow, several years being required to produce a tumor the size of one's fist. Operations are rarely necessary. He had removed them in only 11 per cent. of cases, when they threatened death by hemorrhage, became unbearable by weight or other reason, caused distress, chagrin or shame in young women, induced constant pain, obstructed the circulation, the bowels, or the pelvis, etc. Death by hemorrhage is rare. Even tumors that threaten to obstruct delivery are generally pushed aside by the natural effort. Solid fibroid tumors rarely have any adhesions and are removed without much difficulty. Fibro-cystic tumors are very rare, and very difficult to remove. The natural history of 90 per cent. of fibroid tumors is to grow to a size to reach the umbilicus, or to reach higher or lower than this point, and then to remain stationary, and after the menopause, to become cretaceous and atrophied. Ergot, curetting, and electricity, more or less control hemorrhage, but have little effect upon growth.—*Medical News.*

Chloroform in the Albuminuria of Pregnancy.—DR. M. J. DUFF reports five cases of albuminuria and convulsions of pregnancy in which from 10 drops of chloroform, three times a day, to 30 minims every two hours, were given internally. All the women and children (except a hydrocephalic monster) survived. Three of the women had convulsions. Under the treatment, there was marked increase of urine and diminution of albumin in two cases. This is by no means a new method, but it is deserving of more investigation.—*Journal American Medical Association.*

Drainage of the Uterus through the Natural Channels.—DR. JULES CHÉRON uses two kinds of horsehair drains. The first, called the drain *en anse*, consists of from 20 to 100 horsehairs, from 11 to 15 centimetres long, bent back upon themselves in an ellipse, which, by its form, is easily retained within the uterus. The ends of the hairs are strongly fastened in a cylinder set in a very light, ring-shaped, celluloid plate, with dull edges, and about one and one-half centimetres in diameter. The drain *en érigue* is made of a number of horsehairs, 8 to 10 centimetres in length, the ends of which are fixed in a similar plate, while 8 to 10 millimetres of the opposite ends are bent back in the form of hooks, which separate and hold the drain in place. After several years experience with these drains, Dr. Chéron concludes: (1) Drainage of the uterine cavity by means of horsehair drains is a therapeutic remedy easily managed, absolutely without danger, yielding the best results. (2) The increase of the uterine secretions, the lessening of the congestion and volume of the uterus, and the lowering of the intra-uterine temperature, represent the physiological action of this method of treatment. We must add to these phenomena the slight sanguineous flow which may continue for a few days after using the drain *en érigue*. (3) This drainage is indicated in uterine sub-involution and all kinds of endometritis, especially the catarrhal varieties. It supplements curettage in hemorrhagic endometritis, and is formally indicated after forcible dilatation and curettage for salpingitis (Walton's method). It is also advisable in certain forms of amenorrhea, and in congestive dysmenorrhea connected with slight anteflexion or easily dilatable stenosis of the external orifice. This method is very useful after bilateral incision of the cervix for stenosis and rigidity, and has yielded the most encouraging results in membranous dysmenorrhea. The drain *en anse* is indicated in all these circumstances, except amenorrhea and membranous dysmenorrhea, when the drain *en érigue* is preferable. (4) The precautions necessary to the use of this drainage are previous and complete antisepsis of the parts, their subsequent asepsis and the relative repose of the patient. (5) This method is contra-indicated in abnormal sensitiveness, and acute or sub-acute inflammation of the uterus or its annexes.—*Gazette des Hôpitaux*, October 29, 1892.

Treatment of Uterine Hemorrhage by Intrauterine Electrolysis of the Salts of Copper.—DR. DELINEAU, of Paris, reports a dozen patients cured by this treatment. Of these, one had been twice curetted without benefit, and one had suffered for three years from hemorrhage caused by large fibroids. The treatment not only arrested the hemorrhage, but eliminated the tumors. Dr. Delineau believes that intrauterine electrolysis of the salts of copper will give remarkable results in all cases of uterine hemorrhage, symptomatic of endometritis, or fibroid tumors. It possesses the following advantages: (1) It is applied easily without anesthesia, and without assistants. (2) The patient is compelled neither to go to bed, to keep her room, nor to give up her usual occupations. (3) The current is weak, therefore without danger. (4) Pain is easily and permanently relieved at the beginning of the treatment. (5) There is no fear of septic complications.—*Gazette de Gynecologie*, November 1, 1892

Fungous Endometritis in Uterine Fibroids.—In reference to this subject, DR. NELOT concludes: (1) That hemorrhage in uterine fibroids is not always caused by the presence of fungous endometritis. (2) When this endometritis exists it must be considered as a complication, often pre-ëxistent, of septic inflammatory origin, which may arise in the annexes as well as in a non-fibroid uterus. (3) In this case it is necessary to treat the concomitant-endometritis; but it would be an error to believe that all hemorrhagic fibroids are necessarily accompanied by endometritis.—*Journal de Médicine de Paris*, October 30, 1892.

Remarkable Results of Antiseptic Symphysiotomy.—DR. ROBERT P. HARRIS contributes a paper on the remarkable results that have followed a resort to this operation by Morisani and others. It is to Prof. Morisani that we owe the revival of the operation. His first case was in 1866. The conjugate was $3\frac{3}{16}$ in. Both child and mother were saved. Up to 1881 fifty operations at Naples were recorded, with a mortality of 20 per cent. Since 1886 there have been forty-four operations, fifteen by Morisani, with the death of only one mother and only five children. The conjugate diameter ranged from 2⅜ in. to 3¾ in. The least diameter justifying the operation is now stated by Morisani to be 2⅝ in. Two inches and a half of separation on the average are all that can be claimed as safe in the living woman, although more than three inches have been attained. Great care must be taken in ascertaining the amount of contraction and in determining a normal condition of the sacro-iliac synchondroses, since the operation is not practicable in a Robert or Naegele pelvis. Symphysiotomy is not to be considered when the diameters are less than 2⅝ in., nor even then if the head be large. Cesærean section is the only alternative; but it has a definite value as an opponent to the barbarous operation of craniotomy. The operation is thus described: After proper aseptic precautions, the woman is placed on her back at the edge of the bed. Examine the depth, thickness, and direction of the symphysis, and search out the fossa in its superior edge which marks the point of union of the two pubic bones; then examine the inferior margin and the anterior and posterior faces of the pubes. Introduce the catheter and give it to an assistant, that he may depress the urethra from the pubic arch and at the same time carry it to the right side to save it from injury. Make a vertical incision through the skin and fat above the pubes about 2¾ to 3 in. in length, ending about ¾ in. above the symphysis, cutting the tissues gently and passing in a line toward the left of the clitoris so as not to injure it. Detach for a short space the recti muscles from their attachment to the two ossa pubes; introduce the index finger into the opening and separate the retro pubic tissue. Then apply the palmar face of the finger against the posterior face of the symphysis and hooking with it, the inferior margin of the articulation, while the assistant attends to the catheter as stated. The operator then introduces the Galbiati knife—shaped like the decapitating hook, with the blade in the concavity—and hooks the blade around the articulation, cutting the interosseous ligaments and cartilage from within outward and below upward. When the section has been completed it will be known by a creaking sensation and a separation of the bones from 1¼ to 1½ inches. The wound is now protected, the fetus delivered, the assistant preventing excessive separation of the innominata, the wound closed by six or eight sutures, and a bandage applied to the pelvis and lower extremities.—*American Journal of Obstetrics*, October, 1892.

Another successful case of symphysiotomy in France is reported by DR. DUCHAMP. The bones separated two inches and a half, permitting an easy delivery. The patient made a good recovery and was discharged in six weeks. It does not appear that any serious impairment of the pubic junction results.—*Medical Press and Circular*, August 24, 1892.

Compression for Cure of Swollen Breasts.—DR. TALBOT R. CHAMBERS inveighs—and very properly—against the old practice of rubbing an engorged or inflamed breast. He refers to the practice of compression by application of a tight bandage around the chest, and describes the "caked breast cure" as follows: "It is an appliance to carry out the principle of equable, comfortable, cleanly, effective compression. Its rubber shields are accurately fitted by the dressmaker's art to the female form. It may be readily tightened or loosened by means of the corset lacing behind and the shoulder straps in front. The hand gently passed beneath the shield lifts the breast into a comfortable position, with the nipple escaping through the nipple hole in the shield. The milk runs over the outside of, and cannot get beneath, the shield. It is to be worn constantly, day and night, just as your muslin bandage, until resolution has taken place. It may be washed. It is light and cool."—*Medical Record*, June 11, 1892,

Chloroform in Parturition when Chronic Heart Disease Exists.—DR. T. RIDGWAY BARKER argues in favor of the use of chloroform in labor when there exists organic disease of the heart, upon which increased strain might prove fatal. The anesthesia should never be carried to the extent of stupor. In these cases we have a choice of evils. The extra strain put upon a weak heart in the expulsive stage of labor is not unlikely to be attended by dangerous consequences. Since chloroform allays excitement and diminishes or annuls voluntary expulsive action, are not the possible dangers of its use more than compensated for by the evils it relieves? The opinion favorable to the moderate use of chloroform in this connection seems well grounded.—*American Lancet*, June, 1892.

Spontaneous Reduction of a Prolapsed and Inverted Uterus.—A case of this kind, in a woman 66 years of age, is recorded by DR. E. J. FORSTER. The patient had borne seven children, the last, 26 years ago. The prolapse had existed at least two months, how much longer could not be ascertained. The parts were kept scrupulously clean and aseptic, an ulcerated sinus touched with carbolized iodine and a corrosive sublimate pad applied. Soon the inverted body began to diminish in size, and in about two weeks its reduction was complete. Lacerations of the cervix and perineum were subsequently repaired and the patient discharged cured.—*Boston Medical and Surgical Journal*, July 14, 1892.

Mistletoe as an Oxytocic.—DR. HAMILTON P. HOWARD confirms the claim of Dr. W. H. Long, of the United States Marine Hospital Service, as to the oxytocic action of the mistletoe, and that its effect is *intermittent*, not *tonic*. The latter had used it in hundreds of cases for years, and found it more prompt and certain than ergot. The former found it efficient in two cases, which are described.—*Medical News*, May 14, 1892.

Pills for Habitual Abortion.—Two grain pills of assafetida, mixed with a sufficient quantity of extract of gentian, of which from two to ten a day are ordered, have been employed with great success in Italy, when abortion occurred independently of any known cause. The treatment should be commenced as soon as pregnancy is suspected, and continued during the whole period.—*Medical Press and Circular*.

SURGERY.

By T. W. HUNTINGTON, B. A., M. D., Surgeon Southern Pacific Company's Hospital, Sacramento, Cal.,
J. F. MORSE, M. D., Surgeon German Hospital, San Francisco, Cal., and
G. F. SHIELS, M. D., C. M., F. R. C. S. E., Surgeon Polyclinic, San Francisco, Cal.

The Treatment of Club Foot by Continuous Leverage.—In a paper upon this subject DR. HENRY L. TAYLOR describes and advocates a method of treating pes equino-varus by leverage continuously applied in such a manner as to progressively unfold and remold the deformed foot. The following practical points are emphasized: (1) The preservation of the heel-cord as an aid in unfolding the foot. (2) The reduction of the varus deformity first, afterward of the equinus. (3) Exact prehension of the foot by means of an apparatus not attached to the shoe, and by adhesive plaster applied to the leg. (4) The application of leverage to the inner side of the foot and leg. (5) Thorough mechanical after-treatment.—*New York Medical Journal*, November 19, 1892.

A Clinical Classification of Hip Disease.—DR. ROBERT W. LOVETT says: Hip disease may at times appear as mild and benignant and run a brief and favorable course, while at other times it is a malignant, destructive process, which is often but little affected by therapeutic measures. There may be intermediate degrees, so that hip disease is an affection which varies within very wide limits. A classification which would enable us to recognize, early, the rapid, destructive form, would result in more radical and stringent methods of treatment, and an important difference in the outcome of the disease might be expected in these cases. Such classification should rest on a pathological basis if possible. We know that the affection generally begins as a tuberculous osteitis of the head of the femur, and passes on to affect the synovial membrane, and in most cases to eventuate in a more or less destructive inflammation of all the joint structures. We have no pathological knowledge sufficient to enable us to ascertain that certain phenomena mean that bone is affected, and that certain others mean the involvement of the synovial membrane in other than exceptional cases. If the disease is subdivided clinically and so studied, and these clinical types are associated with different types of a common pathological process, such a method will lead in time to an accurate pathological classification. The four well marked types are: (*a*) *Destructive*, due to a florid tuberculosis of bone or an acute infectious osteomyelitis, where the disease is rapid, severe, and but little influenced by ordinary treatment; extensive infiltration of the soft parts takes place, and in most instances the disease passes on to a fatal issue. (*b*) *Painful*, due to the ordinary form of focal bone tuberculosis, where irritation surrounds the foci and the tendency is to purulent degeneration. The pain is a prominent symptom, and exacerbations are common. (*c*) *Painless*, due to the fibroid form of focal bone tuberculosis, where there is little irritation surrounding the foci and a tendency to the deposit of fibrous tissue; pain is an unimportant factor or is entirely absent. (*d*) *Transient*, due probably to a focus of tuberculosis which is rapidly absorbed, or is so far removed from the joint that it causes little or no synovial irritation; the symptoms are mild and the course of the disease is run in a few months.—*Boston Medical and Surgical Journal*, October 13, 1892.

Cholecystotomy.—In some remarks upon the *technique* of the operation DR. A. T. CABOT says the gall bladder in most cases was shrunken and could not be felt before the operation. The decision for or against interference, was made from symptoms unaided by physical signs. Usually, when a distinct history of sharp attacks of hepatic colic was obtained, a stone was found. In one case no consistent stone existed at the time of operation. In two cases there was a strong suspicion of malignant growth before operation. In one case gall-stones were found and the man made a good recovery; while in the other case the suspicion of malignant growth was confirmed, and the progress of the disease was unaltered by the operation. It makes little difference whether the gall-bladder is drawn up and stitched to the abdominal wall or not. If adequate drainage is provided for the bile, the cases in which openings are made into the deep lying ducts do well, and the bile does not exert any very irritating action upon the peritoneum with which it comes in contact. When, however, the gall-bladder can be drawn up to the surface it is well to stitch the opening into the wound and thus shut it off from the peritoneal cavity. When this is done it is important to sew the gall-bladder to the parietal peritoneum rather than to the skin. In this way there is less liability to the formation of a persistent fistula; for if there is a deep wound through the abdominal wall above the wound in the gall-bladder, there is a better chance for granulations to close across the opening. Drainage was always provided for the gall-bladder and in no case had the wound in the wall been closed at once by sutures. In one case the wound in the gall-bladder was stitched up, but drainage was provided for the bile by a tube introduced into the cystic duct beyond. In favorable cases the cystic wound might be safely closed and the time of convalescence be thus considerably abridged. It is possible to secure the wound of the gall-bladder against the under surface of the abdominal wound, as the stump of an amputated uterus is treated by Dr. Kelley's intra-peritoneal method, and thus the danger of an escape of bile into the peritoneal cavity be greatly diminished, if not avoided.—*Boston Medical and Surgical Journal*, December, 1892.

OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

By WM. ELLERY BRIGGS, M. D., Sacramento, Cal.

The Statistical Value of Diphtheria Diagnosis.—DR. G. RHEINER gives the following conclusions as a result of his investigation of the subject: (1) The diphtheritic membrane is the result of the inflammatory transudation of the mucous membrane vessels with secondary coagulation and necrosis of the sero-fibrinous exudate. The formation of membrane ceases when the inflammation abates. (2) True diphtheria is produced by the bacillus of Löffler, which is found on the membrane the second day of the disease. Diphtheria is at first a local disease, and becomes a general disease from the absorption of the poisonous chemical products of the bacilli. To positively determine the case to be diphtheria the Löffler bacillus must be found to be present. (3) The prognosis in the bacillus form is less favorable than in pseudo-diphtheria. (4) Scarlet fever diphtheria is generally due to scarlet fever poison producing a necrotic angina in which the Löffler bacilli are not present, although true diphtheria may also complicate scarlet fever, and it makes the prognosis very grave. (5) The diphtheria statistics of the present day are of doubtful value, containing as they do many cases which are not, according to our present knowledge, properly classed as true diphtheria.—*Centralblatt f. Chirurgie*, November 26, 1892.

Nasal Hydrorrhea.—DR. C. E. BEAN reports three cases of this disease and the result of treatment of the condition. In the first case, a woman aged 30, he found nasal polypi, the removal of which cured the case for a year. A second recurrence was found to be due to a recurrence of the polypi. They were again removed with part of the turbinated bone to which they were attached. After this operation the hydrorrhea did not recur for three years, at which time there was frequent recurrence of the watery secretion, but no appearance of the polypi. The severity of the attacks were abated by the internal administration of strychnine, belladona and camphor. Local use of cocaine solution was of no benefit. A second patient, a woman aged 32, had suffered from excessive watery discharge from the nose, with headache and conjunctivitis for several days. Several years previously patient had had the inferior and middle turbinated bodies cauterized for naso-pharyngeal catarrh. The discharge was constant, preventing prolonged sleep, and saturating in a few moments large towels and producing excoriations of the upper lip. The attack lasted three weeks, terminating in an asthma seizure which lasted two weeks. In about a year she had a similar attack, terminating as before in asthma. This was controlled at last by large doses of lobelia and belladonna. Both attacks came on at menstrual periods and were at the height during the menstrual flow. A uterine misplacement was present, which, when corrected with pessary, seemed to benefit the nasal hydrorrhea. Local applications to the nasal mucous membrane seemed to do no good, while cocaine aggravated it. McMunn's elixir and bromide of sodium in large doses gave relief both generally and locally. The third patient was a man, aged 45, a subject of hay fever and nasal catarrh; had been suffering from hydrorrhea for two weeks when first seen. Only the left side of the nose was affected. Powders and cocaine solution locally, as well as atropine and camphor alternated with bromide of sodium, internally, had no beneficial effect. The galvano-cautery knife was used, but with no permanent help. The patient was then advised to go to California, where the change of climate seemed to have the desired effect. From these cases it is seen no line of treatment can be laid down. Cocaine which would be expected to relieve the condition seemed to do harm. Outside of the cases produced by traumatism or polypi no good can be expected from local treatment. Internal administration of antispasmodics to relieve and control the neurotic condition hold out most encouragement. After the acute attack has passed, tonics with iron, strychnine and quinine, together with cold baths and massage, are to be recommended.—*New York Medical Journal*, December 10, 1892.

Aristol in the Treatment of Ozena.—DR. W. C. PHILLIPS having treated twenty-two cases of ozena with aristol, concludes that it is superior to any other remedy in these troublesome conditions. After five applications the breath always became free from offensiveness, and remained so while the treatment was continued. As none of the patients had discontinued it, he is unable to decide whether or not the improvement will be permanent. The applications are made in the form of spray in solution of liquid petroleum. Thirty to forty grains to the ounce can be dissolved by first dissolving the aristol in a small quantity of pure almond oil. It is well to add some flavor, as oil of wintergreen. The spray should be applied night and morning for a long time. —*Journal American Medical Association*, October 3, 1892.

DERMATOLOGY, SYPHILIS AND VENEREAL DISEASES.

By G. L. SIMMONS, JR., M. D., Sacramento, Cal.

Vulvo-Vaginitis in Children.—DR. EDWARD MARTIN contributes a very interesting article on this subject (*Journal Cutaneous and Genito-Urinary Diseases*, November, 1892). He quotes freely from international authorities and deduces the following conclusions: (1) Vulvo-vaginitis in children may be gonorrheal or irritative. (2) Both forms are prone to occur among dirty, ill-nourished children. Scrofula and the exanthema particularly predispose to the development of either form. (3) The gonorrheal form is rarely acquired from criminal practices; it is usually carried from an infected mother to her child, either during birth or afterwards, by means of the fingers, garments, wash-rags, or bathing water. It is characterized by inflammatory involvement of the urethra, vagina, and endometrium; is attended with fever, local pain, and often severe bellyache, and has a tendency to become chronic. (4) Gonorrheal vulvo-vaginitis may occur at any age. It is probably more common in the first two years after birth. It may be complicated by gonorrheal ophthalmia; by gonorrheal rheumatism; by any of the complications and sequelæ of gonorrhea in the adult. Its discharges are highly contagious, not only by actual contact, but through the medium of baths, bed-clothes, and garments. Hence a prompt diagnosis is of extreme importance, and in institutions cases must be separated from other non-infected inmates. (5) A positive diagnosis can be made only after microscopic examination of the urethral discharges. Since the disease may be acquired in many ways impossible to trace, and since competent observers state that there are other microörganisms in the vulvar discharges of vulvitis, identical in appearance and staining reaction with gonococci, great weight cannot be attached to the finding of these bacteria in medico-legal cases. (6) The treatment consists in frequent injection of the vagina by means of an irrigator and a small soft rubber catheter, with hot soda solution, followed by hot bichloride solution 1:10,000, or silver solution 1:6,000; dusting of the vulva with finely powdered zinc oxide powder, and dressing with dry cotton inserted between the labia. Cure usually results in three to five weeks. Sometimes, when parents are careless of treatments, the inflammation becomes chronic and runs on indefinitely. (7) The catarrhal or irritative form of vulvo-vaginitis is most frequent from the fourth to the sixth year of life. It may be excited by attempts at rape or other traumatism. Its commonest cause is seat-worms and dirt. (8) It is not yet proven that this form is contagious, or is followed by any of the complications of the gonorrheal form. It rarely invades the urethra; often spares the vagina, and occasions but slight local symptoms and no systemic disturbance. Exceptionally it may be the precursor of local diphtheria or gangrene (noma pudendi). (9) Except in the scrofulous, cachetic, and persistently dirty, it quickly yields to mild cleansing, astringent washes, and general tonic treatment.

MATERIA MEDICA AND THERAPEUTICS.

By WM. WATT KERR, M. A., M. B., C. M., Professor of Clinical Medicine, University of California, San Francisco.

Digitalis in Aortic Regurgitation.—The *British Medical Journal*, of June 4, 1892, contains an elaborate article by DR. GEO. W. BALFOUR, in which the use of digitalis in cases of aortic regurgitation is justified. He first claims that as the number of cardiac contractions are diminished by digitalis, therefore is the number of regurgitations in a given time correspondingly diminished. This, of course, is self-evident, and he at once passes on to refute the statement that the prolongation of the diastole by digitalis causes a prolongation of the regurgitation, and therefore increases the risk of fatal syncope. Within the vascular system there is neither air nor a vacuum, but one unbroken column of blood extends from any point within it, back to itself again; and as the heart is the only part of this system endowed with active movement, upon it the circulation of the blood depends. When the left ventrical contracts, it propels its contents into the aorta, that vessel—already full of blood—by virtue of its elasticity, expands and receives this further supply thrown into it. When the diastole of the ventricle is commencing, owing to the relaxation of the contracted muscle, there is developed "a negative pressure in the rear of the column of blood driven from the ventricle into the aorta;" and this negative pressure, although greatest within the ventricle, follows the blood past the semilunar valves and contributes to the closure of these valves. At the end of the ventricular systole the segments of the mitral valve form a depending cone with its apex directed to the apex of the ventricle. This cone is full of blood in free communication with the auricle now fully distended, and at the moment of diastole, the sucking influence of the negative pressure within the ventricle opens up its apex, the blood closely follows the expanding wall of the ventricle, and gently floats up and into apposition the segments of the mitral valve. At the moment of the ventricular diastole, the systole of the aorta takes place, and this vessel returns to its normal size. In health, this systolic compression of the blood within the aorta helps to close the semilunar valves, but the whole amount received from the heart is propelled onwards. When the aortic valve is incompetent, there is a certain amount of regurgitation which has been calculated as being about one-third of the ventricular contents, but is never equal to the amount propelled, otherwise the whole circulation would come to a standstill. Under the influence of the aortic systole and the intra-ventricular negative pressure the blood from the aorta, and from the auricles, closely follows the wall of the ventricle during its expansion, fills up its cavity, and floats up and into position the segments of the mitral valve. So soon as the ventricle has returned to what Foster calls its normal condition, its active expansion ceases, and a period of rest, or quiescence, sets in, during which the blood within its cavity, in the aorta, and in the auricle, comes under the influence of hydrostatic laws only. The most important of these laws in this relation is Pascal's law: "Pressure exerted anywhere upon a mass of liquid is transmitted, undiminished, in all directions, and acts with the same force upon all equal surfaces, and in a direction at right angles to these surfaces;" and, also, the corollary to Pascal's law: "Pressure transmitted by a liquid is proportional to the extent of the surface." The area of the mitral opening may be taken at 1.25 square inches, and the area of the dilated aortic at .25 square inch—never more, often less; the ratio of the respective surfaces of these openings is, therefore, 5:1[5]. From the mere surface point of view, therefore, the blood column in the auricle is four equivalents in excess of what is necessary to counterbalance the blood column in the aorta, and in addition to this, we have the momentum of the blood stream coming from the right side of the heart, which has been calculated at one-fourth the force of the left ventricle. These forces, after making a liberal allowance, yield a pressure much more than sufficient to prevent all regurgitation through the aortic orifice during the quiescent period of the diastole. Apart from its action in leaving the heart, digitalis increases the elasticity of the muscular tissue, so that this extends and contracts more completely and perfectly, and, as all the blood passes through the heart more frequently than any other muscle, this action is especially exerted upon it. When, from any cause, compensation is ruptured, an aortic heart will be found as amenable to the beneficial influence of digitalis as any other failing heart, but larger doses are required; indeed, little influence is produced by less than three times as much as would suffice for a mitral heart. In failure dependent upon arterio-sclerosis alone, the tonic influence of digitalis on the heart is hinderd unless we combine it with some drug which unlocks the arterioles, and so prevents an increase of the blood pressure, already abnormally high.

Testicular Fluid.—At a meeting of the *Académie des Sciences* at Paris, DRS. BROWN-SÉQUARD and ARSONVAL made some new communications on the therapeutic action of testicular fluid administered hypodermically, which may be briefly summarized as follows: (1) The affections produced by organic lesions of the nervous system or by impairment of its functions—contractures, general paralysis, locomotor ataxia, and certain forms of insanity are cured or ameliorated by these injections. (2) The organic or constitutional dieases due to defective nutrition of the organs—such as anemia, glycosuria, and tuberculosis are arrested by this procedure. The authors have treated 83 tuberculous patients with subcutaneous injections of the testicular fluid, and in no instance did this liquid, filtered and sterilized, occasion any untoward secondary symptoms; only 9 of the patients died and 74 are considered as cured. Not only did the morbid reflexes, caused by the pulmonary irritation and determining the formation of the tuberculous neoplasm disappear, but the improvement of the nutrition, produced by the organic action of the medicament permitted the organism to become master over the morbid process already in a fair way for evolution. If it is so that it is necessary to destroy the cause of the disease to arrest its evolution, the medications that kill the microbe—which is believed to be but a secondary agent in tuberculosis—would be inefficacious, and only the substances which fortify the organism by increasing the power of the nervous system, and, consequently, the nutrition of the organs, would constitute a rational treatment.—*Merck's Bulletin*, September, 1892.

POEHL asserts that the activity of Brown-Séquard's injections is due to the presence of spermine in the testicular fluid. Spermine is found not only in the testicles, but in all glandular organs, especially in the pancreas, which contains large quantities. Experiments with hydrochlorate of spermine lead to the conclusion that the substance is an excellent nervine tonic and free from danger if used with care. It acts on the body after the manner of a true ferment, producing an increased rapidity of oxidation in the tissues.—*British Medical Journal*, September, 1892.

Dietary in Chronic Nephritis.—In a discussion on this subject before the *Académie des Sciences*, DR. DUJARDIN BEAUMETZ said it was not the albuminuria, but the accumulation of toxic substances in the economy, that required attention. The indication is, therefore, to assist the elimination of these poisons, and to prescribe such a regimen as will most tend to limit their production. To this end severe mental and physical exertion should be avoided. As toxines develop in meat three days after the death of the animal, he thought meats not absolutely fresh should be avoided; also, for the same reason, fish, game, oysters and cheese. Milk should form the most important part of the dietary, but it should be sterilized. He never saw the albuminuria increased by the administration of eggs. All meats should be well cooked and those which contain a considerable amount of gelatin are the most suitable. Among the starchy foods, rice is of the greatest value. It is also desirable to limit the formation of toxic substances in the alimentary canal by the exhibition of such antiseptics as benzo-naphthol and salol. DR. G. SÉE thought drugs of little value to patients suffering from albuminuria. With the exception of caffeine and lactose, which sometimes prove very efficient, diuretics should be avoided. The digitalis group always proves injurious to the kidneys. Preparations of iron may add to the congestion, but the iodides and salts of strontium or lime may render some service.—*International Medical Magazine*, December, 1892.

Treatment of Delirium Tremens.—DR. NORMAN KERR, believing delirium tremens to be the direct result of the cumulative specific action of alcohol on the cerebral tissues, aims in his treatment to eliminate the poison, leaving nature to do the rest. To effect this elimination he uses drachm doses of liquor ammoniæ acetatis every hour, and at the same time milk, beef-juice, broth and coffee are administered freely and frequently. As the best and quickest cure lies in natural exhaustion, inducing sound and refreshing sleep, the use of alcohol, opium, chloral, or any of the narcotics, is absolutely interdicted The results of this method are claimed to be very satisfactory.—*International Medical Magazine*, December, 1892.

MEDICINE AND PATHOLOGY.

By ALBERT ABRAMS, M. D., Demonstrator of Pathology, and Adjunct to the Chair of Clinical Medicine, Cooper Medical College, San Francisco, Cal.

The Treatment of Dysentery by Injections of a Solution of Carbolic Acid.—DR. KILDUCHEVSKI first reported in 1889 the results of the treatment in a military hospital of forty cases of sanguinolent diarrhea, without any deaths, by injections of carbolized water. Since then he has treated 120 cases, with a mortality of 20 per cent. Four years' further experience with the remedy has confirmed him in his favorable estimate of it. He employs 3½ grains of carbolic acid in a little less that 2 quarts of filtered boiled water. Two injections are given each day, and in grave cases as many as three are given. The administration of opium is completely abandoned, and by the use of the injections the bowels are thorougly washed out of all irritating and poisonous materials. He has found out that these injections exercise a most favorable influence on the ulcers in the mucous membrane. Other substances than carbolic acid may be employed, such as boiled water alone or creolin in solution. The diet is most severely regulated, and consists entirely of milk or bouillon, with a little white bread or some boiled eggs. Iced milk is best tolerated, and may be taken by patients who refuse all other food.—*Journal de Médicine de Paris*—*Therapeutic Gazette*, November, 1892.

Exophthalmic Goitre.—P. J. MOEBIUS has collected the main symptoms occurring in this disease from the widely distributed literature on the subject: (1) Examination of the eyes shows exophthalmus, unusual space between the lids [Stellwag's sign], retardation in the movement of the upper lid [Graefe's sign], insufficiency of convergence, frequent paralysis of the ocular muscles of an intra-cerebrel charactar, tremor of the eyelids and nystagmus. (2) Examination of the heart shows increase in frequency, systolic murmurs at base of heart, cardiac weakness and angina pectoris. (3) Enlargement of the thyroid gland may precede the other symptoms by years. (4) The skin shows diminished resistance to the electrical current [Vigoureaux], vitiligo, pigment spots, urticaria, a bronze coloration of the skin, redness, increased perspiration, loss of hair, and edema of the lower half of the body. (5) Increase in the number of respirations, and cough; diminished distension of the chest after respiration, painless diarrhea without a demonstrable cause, vomiting, bulimia, icterus, atony of the intestines and amenorrhea. (6) Fever is observed in all stages of the disease; it may be ephemeral, remittent or intermittent; anemia, and emaciation may be present. (7) The nervous symptoms are tremor, paraplegia, cramps, muscular atrophy, and disturbances of the mind. (8) The disease may be complicated with epilepsy, hysteria, paralysis agitans, glycosuria, polyuria, tabes, myxedema, or syringomyelia. (9) Regarding the frequency of the individual symptoms, palpitation of the heart and swelling of the thyroid gland are never absent; pallor, emaciation, tremor, Stellwag's sign, and increased moisture of the skin are almost never absent; Graefe's sign, insomnia, and sensation of heat are frequent; pigmentation of the skin, diarrhea, vomiting, insufficiency of convergence, and increase in the number of respirations, are often present. The disease is more frequently observed in females in the middle period of life. Etiologically, a neuropathic disposition is of greatest importance; then follows rheumatism, influenza, climatic changes and traumatism. The course of the disease varies; remissions are frequent and cures questionable. (10) Pathological anatomy has disproven disease of the sympathetic as a cause of the affection. Superficial hemorrhages in the floor of the fourth ventricle have been observed in a few instances; there has also been observed enlargement of the thymus and lymph glands. (11) Therapeutically, besides such remedies as iron, arsenic, belladonna, bromide, etc., electricity, applications of water, and extirpation of the thyroid gland may be mentioned. Regarding the latter, Lemke says: "that patients with exophthalmic goitre belong not to the physician but to the surgeon." Möbius attributes the disease to a primary affection of the thyroid gland of toxic origin.—*St. Petersburger med. Wochenschrift*, June 13, 1892.

Displacement of the Heart in Pleural Effusions.—DR. W. SYMES, in an article on this subject, formulates the following conclusions: (1) That displacement of the heart may occur as early as the fourth day; that a moderate effusion can produce it; and that it may be preceded and accompanied by fainting on exertion. (2) That it occurs before protrusion of the intercostals, and the heart may pulsate beyond the right nipple while they are not involved. (3) That, owing to the basic cardiac attachments, the apex can move in the form of a circle, right or left, that the heart appears to rotate on its long axis; and that this rotation in dexocardia may increase the distinctness of the sounds and impulse. (4) That the heart does not return by the same route, but in a plane somewhat higher; and that this course, whether real or apparent, is dependent upon the non-expansion of the lung. (5) That extreme displacement may exist without either bruit or palpitation, and does not, *ipse facto*, necessitate paracentesis. (6) That it is extremely dangerous for the patient to undergo any exertion when it is so displaced, owing to the many risks of sudden death. (7) That decubitus on the sound side, or in a semi-dorsal position inclined to that side, appears to lessen the tension of the fluid; that it is always a grave symptom, and an urgent indication for paracentesis to relieve tension. (8) That "*le bruit Skodique*" is caused by the compression of healthy lung against the bronchus, thus acting as a better conductor of sound; that it is closely connected with high tension; and that it disappears when the ultra-thoracic pressure falls. (9) That the dangers of displacement being intimately connected with the condition of the opposite lung, the extent of dislocation *per se* forms no criterion, some displacements ending fatally, while other extreme ones are borne with impunity—*Dublin Journal of Medical Science*, July, 1892.

Chorea.—M. JUMON (*Med. Mod.* No. 9, 1892), after reviewing the various methods of treating this affection, concludes as follows: (1) Antipyrin and arsenic give the best results in the treatment of chorea. (2) In chorea of heumatic origin, or with rheumatic manifestations, antipyrin is also indicated, alone or combined with salicylate of soda; sulphur baths are also valuable. If there is any manifestation of hysteria, the use of bromides is necessary. (3) If cardiac complications are present, chloral and hydropathic measures may be employed. (4) In all the simple cases of chorea, gymnastic exercise in moderation, together with albuminoid nourishment, may be employed with advantage. BAUDOIN (*Semaine Médicale*) presents a resume of the treatment of chorea as employed in the hospitals of Paris. According to PROF. G. SEE, there is no specific remedy for the classical chorea. In ordinary cases he employs antipyrin and arsenic with the best results. In rheumatic chorea he combines salicylate of soda with antipyrin. If cardiac complications are present he gives chloral and iodide of potash, associated with hydrotherapeutic measures. He also insists on methodical exercise and proper nourishment.—*Union Médicale.*

Illumination of the Stomach.—At a recent meeting of the Berlin Medical Society, DR. RENVERS demonstrated a simple apparatus for this purpose. It consists essentially of a small Edison's lamp fitted to the end of an esophageal sound and surrounded by a capsule of glass containing water. The lamp is connected with a battery of twelve elements. When the sound is introduced into the stomach, the latter contracts on it, and when the abdomen is viewed an illuminated space is seen about the size of the palm of the hand. When the stomach is filled with food, illumination is impossible. When the stomach is filled to its maximum with water, an illuminated area is seen corresponding to the actual size of the stomach. Dr. Renvers reports the case of a patient in whom carcinoma of the pylorus was diagnosed by this method. When the sound was introduced into the stomach of this patient, the centre of the illuminated area showed a dark spot about the size of an apple; hence the tumor was located in the middle of the stomach. The autopsy confirmed the clinical diagnosis.—*Munchener med. Wochenschrift.*

The Diagnostic Value of Eosinophile Leucocytes in Leukemia and Hodgkin's Disease.—A. A. KANTHACK refers to the observations of Ehrlich and his followers, who ascribe the greatest importance to an increase in the blood of the eosinophile leucocytes in the diagnosis of leukemia and Hodgkin's disease. Lately, much doubt has been expressed by competent observers, as to the significance of these cells in the foregoing diseases; and the author adds some observations of his own to show that they are of absolutely no value in the diagnosis of leukemia. The eosinophile cells have been found in gonorrheal pus, purulent ophthalmia, human pus, in muco-purulent nasal secretions, and in the sputum of patients suffering from asthma, phthisis, and bronchitis. They have also been found in nasal and pharyngeal polypi.—*British Medical Journal.*

A New Treatment of Hepatic Colic.—M. STRISOVER recommends for the attack antipyrin, which he administers in 0.50-gramme doses, repeated at intervals of an hour in case of necessity. During the intervals of the attacks he gives salol or salicylate of soda, in 0.60-gramme doses, three times a day. The salol or salicylate of soda is to be continued for a long time, as demanded by each individual case. The best mode of administering salicylate of soda is dissolved in Vichy water. With this method of treatment, the author claims to have cured many rebellious cases of hepatic colic. Salol and salicylate of soda prevent the formation of new calculi and slowly dissolve the calculi already formed.—*Nouveaux Remèdes.*

MENTAL DISEASES AND MEDICAL JURISPRUDENCE.

By A. W. HOISHOLT, M. D., Assistant Physician, State Asylum for Insane, Stockton, Cal.

The Use of Hypnotics Among the Insane.—The indications for the use of hypnotics in cases of insanity have been summarized as follows: (1) In acute mania, acute delirious mania, acute epileptic mania, before and after fits, and in the acute maniacal stages of general paralysis, and of chronic mania. In these cases they are given to diminish motor and cerebral activity, to prevent exhaustion, to conserve the strength and promote recovery where possible by inducing sleep. (2) In the noisy states of chronic mania, and of the last stages of general paralysis, and in the restlessness often attending convalescence from acute psychoses. (3) In the insomnia of acute and chronic melancholia, to give rest to the recuperative powers of the system. To do good in such cases, the hypnotic must have no depressing after-effects, nor must they disorder digestion. (4) In alcoholic insanity, in periodical and circular insanity, and in primary as well as terminal dementia. In these cases they benefit the patients by quieting motor excitement and controlling the patient, and by inducing sleep.—*Medical and Surgical Reporter*, June 4, 1892.

Caloric Epilepsy.—PROF. M. BENEDIKT, of Vienna, in a recent article, speaks of great rise in temperature as one of the most interesting symptoms of epileptic attacks. The cortical vaso-mótor centre discovered by Eulenburg and Landois explain the relationship of thermal phenomena to primary cortical irritation. This centre is situated in the dog in front and behind the external end of the fissura cruciata, which answers to a fissure between the gyrus precentralis and the right frontal lobe of the human brain. The rise in temperature cannot be due to the tonic muscular contractions, because very severe convulsions have been observed without marked increase in temperature. The author quotes the case of a 15-year-old boy who was subject to daily attacks of high temperature (exceeding 42.5° C.), which, however, rapidly subsided. Quinine had no effect on the course of the disease. The blood was found to contain plasmodia. Some of the attacks of fever lasted as long as seven hours, and when the temperature exceeded 42.4 to 43° C., the patient would become unconscious, strike at those around him, and be delirious. At such times the pupils were dilated and did not react. The pulse did not go beyond 104. On application of the thermo-cautery in the neighborhood of the coronary suture, hydropathic treatment and the administration of iodide of sodium and Fowler's solution the attacks gradually subsided. In the differential diagnosis, Professor Benedikt was able to exclude the hereditary, congenital, hysterical and the idiopathic form of epilepsy, and places the case among the toxic forms of epilepsy, due to microbes or ptomaines.—*Centralblatt f. klin Medicin.*

Injuries from Mere Fright Not Actionable.—A suit was recently brought by a lady in Pennsylvania against the C. C. and St. L. R. R. Co., because in a collision, railroad cars had been derailed and fallen on plaintiff's premises against her dwelling-house, in which she was present at the time, subjecting her to "great fright, alarm, nervous excitement and distress, whereby she then and there became sick and disabled from attending to her usual duties, and suffered and continues to suffer great mental and physical pain and anguish, and is thereby permanently weakened and disabled." The Supreme Court decided, on demurrer, that the complaint stated no cause of action, summing up the decision as follows: "It is plain from the plaintiff's statement of her case, that her only injury proceeded from fright, alarm, fear, and nervous excitement, and distress. There was no allegation that she had received any bodily injury. If mere fright, unaccompanied with bodily injury, is a cause of action, the scope of what are known as 'accident cases' will be very greatly enlarged, for in every case of a collision on a railroad, the passengers, although they may have sustained no bodily harm, will have cause of action against the company for the fright to which they have been subjected. This is a step beyond any legal tribunal of which we have knowledge. Negligence constitutes no cause of action, unless it expresses or establishes some breach of duty. What duty did the company owe this plaintiff? It owed her the duty not to injure her person by force of violence; in other words, not to do that which, if committed by an individual, would amount to an assault upon her person. But it owed her no duty to protect her from fright, nor had it any reason to anticipate that the result of a collision on its road would so operate on the mind of a person who witnessed it, but who sustained no bodily injury thereby as to produce such nervous excitement and distress as to result in permanent injury; and if the injury was one not likely to result from the collision, and one which the company could not have reasonably foreseen, then the accident was not the proximate cause."—*New York Medical Times.*

FORMULÆ.

By GEO. B. SOMERS, M. D., San Francisco, Cal.

Treatment of Boils.—DR. CRAIG, in the *Reporter*, recommends the folfowing treatment for boils:

Tinct. ferri chlor. --------gtt xv
Liquor potas. arsenitis--gtt iii
Aquæ ------------------ ʒ ss —M

Take at a dose after each meal. Use locally carbolized camphor and a poultice when there is much inflammation. *Brooklyn Medical Journal.*

Plant's Asthma Cigarettes.—The *Pharmaceutische Post* gives the formula as follows:

Stramonium leaves----8 parts
Pulv. green tea leaves--8 parts
Lobelia leaves ---------7 parts

Mix and moisten with a saturated solution of potassium nitrate. Dry and preserve in hermetically sealed cans.—*National Druggist.*

Local Anesthesia. — NEUDOERFER states that the effect of cocaine is increased by using as a vehicle bitter almond water. The danger of using large doses of cocaine may thus be avoided:

Cocaine hydrochlorate--gr xv
Bitter almond water----- ℥ iii—M

S.—About 15 minims for an injection.—*Médicine Moderne.*

Galactagogues. — MLLE. GRINIEWITCH (*Bulletin Médicale*), in a thesis on this subject, states that she has observed an increase in the flow of milk after the use of electricity, galega, anise seed, fennel, the stinging nettle, and the cumin seed. Galega appeared to be the most active and was used as follows:

Extract of galega-------- ℥ ii
Alcohol (60 per cent.)--- ℥ xxx M

S.—One or two ounces per day in doses of about a teaspoonful.

Extract of galega------- ℥ iss
Simple syrup------------ ℥ xxx

S.—4 or 5 soup spoonfuls a day.

Extract of galega--------gr iv
Excipient q. s.

Sufficient for one pill. One to four pills a day.—*Lancet-Clinic.*

Lemon Tonic.—The following is prescribed under the above name in various hospitals :

Cinchonine sulphate ---gr xxx
Citric acid---------------gr xxx
Tinct. chlor. iron -------m xxx
Syrup ------------------ ℥ iss
Water, to make--------- ℥ iv—M.

S.—Teaspoonful at a dose.—*Pharmaceutical Era.*

PUBLIC HEALTH.

By W. R. Cluness, M.A., M.D., Sacramento, Cal.

Mortality for November.—The deaths registered in 104 town districts of the State during the month of November, in a population of 794,391, correspond to an annual rate of 16.32 a thousand, the total mortality having been 1080. 152 deaths were due to zymotic diseases, giving an annual rate of 2.31 a thousand. Of these, 30 were due to diphtheria, 20 to cholera infantum, 36 to typhoid fever, 18 to diarrhea and dysentery, 8 to cerebro-spinal fever, 16 to scarlet fever, 5 to whooping cough, 17 to croup, and 2 to remittent and intermittent fevers. 306 deaths resulted from diseases of the respiratory organs, giving an annual rate of 4.62 a thousand. Of these 172 were due to consumption, 87 to pneumonia, 31 to bronchitis and 15 to pulmonary congestion; the rate being for consumption and pneumonia 2.59 and 1.29 respectively. 94 deaths resulted from diseases of the heart. The average annual death rate from all causes occurring in the ten largest cities and towns in the state, and representing a population of 563,000, was 17.16 a thousand. The highest rate for the month occurring in cities having a population of 10.000 or more inhabitants, was reported from San Jose, the lowest from San Diego.

Small-Pox.—This disease is reported as being more or less prevalent in many of the different States of the Union, and for several months past has been threatening to invade California, on the north by way of British Columbia, Washington, and Oregon, and on the south through Mexico.

Does Vaccination Protect ?—In view of the incontrovertible evidence that the means of protection from this loathsome and fatal disease are at our command, the question again arises, "does vaccination protect ?" On this subject the following observations are summarized from *Public Health.* The truths therein stated should be well considered by every physician in the land, for every practitioner of medicine should regard himself as the conservator of the public health, and should consider the prevention of all forms of *unnecessary* disease as his most important duty. From this standpoint, then, it must be evident that a large percentage of practising physicians have of late years been very derelict in duty, for, judging from the large number of children unvaccinated in Sacramento, there has been no period in our history during the past fifty years when so large a ratio of unprotected children were present. Our lines of defence, says the journal alluded to, are mainly two: (1) Vaccination, and when necessary, revaccination. (2) Isolation of cases as they occur. No number of intelligent physicians doubt the efficacy of vaccination in effectually preventing small-pox up to a certain period in life, and that later in life, if it does happen, it is rendered less severe. In quoting the introduction of Sir George Buchanan to Dr. Barry's report of the late epidemic of small-pox in Sheffield, it is observed that in children under 10 years of age the attack rate and death rate per thousand were as follows:

The attack rate of the vaccinated	5 per 1,000
The attack rate of the unvaccinated	101 per 1,000
The death rate of the vaccinated	.09 per 1,000
The death rate of the unvaccinated	44 per 1,000

Under the general circumstances of the Sheffield epidemic, therefore, the vaccinated children had, as compared with the unvaccinated children living in town, a 20-fold immunity from attack by small-pox, and a 480-fold security against death by small-pox. Concerning persons over 10 years of age, Dr. Barry shows the attack rates and death rates to be as follows:

The attack rate in persons twice vaccinated-- 3 per 1,000
The attack rate in persons once vaccinated--- 19 per 1,000
The attack rate in persons not vaccinated---- 94 per 1,000
The death rate in persons twice vaccinated --.08 per 1,000
The death rate in persons once vaccinated--- 1 per 1,000
The death rate in persons not vaccinated---- 51 per 1.000

So that the twice vaccinated persons over 10 years of age, as compared with the unvaccinated persons of the same age, had a 31-fold immunity against attack by small-pox, and a 640 fold security against death by that disease. Apart from revaccination in people over 10 years of age, if vaccinated at all, there was a 5-fold immunity against attack by small-pox, and a 51-fold security against death by small-pox, compared with the unvaccinated people of the same age. Figures such as these speak for themselves, and conclusively show that vaccination and revaccination are a most valuable safeguard against attack by small-pox. But the full protection to the community afforded by vaccination has only been acquired gradually, and that after compulsory powers for its enforcement were obtained. A reference to a report of the Registrar-General shows that the relative number of deaths from small-pox has decreased in proportion to the amount of pressure exercised for the performance of vaccination. He gives the following figures for three periods:

1. Vaccination optional, 1847–53—305 deaths per million of population.
2. Vaccination obligatory, and more efficiently performed, 1854–72—223 deaths per million.
3. Vaccination obligatory, and more efficiently enforced by vaccination officers, 1872–80—156 per million.

These figures show conclusively that, coincidently with the general extension of the practice of vaccination, there has been a general and notable decline in the mortality from small-pox at all ages.

METEOROLOGY.

Summary For October.—*Temperature.*—The normal temperature of the State for November is 53.4° and the mean or average temperature for November, 1892, was 54.2°. A departure from the normal of +.08. The highest monthly mean temperature was 62.9° at Rialto, and the lowest 36.9° at Susanville. The maximum temperature was 95° at Rialto, and the minimum temperature 16° at Tehachapi. The greatest monthly range was 64° at San Jacinto, and the least 33° at Oakland.

Rainfall.—The normal precipitation in the State for November is 2.43 inches, while the average for November, 1892, is 5.83 inches, showing a departure from the normal of +3.40 inches. The greatest monthly precipitation was 23.09 inches at Edmanton. The least monthly precipitation was nothing at Citrus and .11 of an inch at at Tehachapi.

Unusual Features.—The unusual meteorological feature of the month was the heavy winds and rain storms from the 27th to the 30th. The greatest precipitation in 24 consecutive hours occurred on the 30th at Los Gatos 5.80 inches and Nevada City 5.20 inches, while in 15 hours at Newcastle there was 3.49 inches measured, and 2.53 inches at Palermo in the same length of time, all on the 30th, with high winds ranging from 48 to 72 miles per hour.—JAMES A. BARWICK, Director California Weather Service.

California—Tabular Statement for November, 1892.

STATIONS.	TEMPERATURE.						RAINFALL.		Mean Relative Humidity	WEATHER.			WIND.	FURNISHED BY—
	Mean	Highest	Lowest	Mean Highest	Mean Lowest	Mean Daily Range	No. of Days Rain Fell	Total Rainfall		No. of Clear Days	No. of Fair Days	No. of Cloudy Days	Prevailing Direction.	
Auburn .... Cal.	57 0	80.0	35.0	----	----	----	----	6.13	----	----	----	----	N. E.	Southern Pacific Company.
Berkeley......... "	52 7	74.0	39.0	62.6	48.1	14.5	7	5.35	80.0	15	6	9	N. & S.	Obs. University of California.
Colfax........... "	47.2	80 0	30.0	----	----	----	----	13.25	----	----	----	----	N.E.	Southern Pacific Company.
Eureka.......... "	49.6	67.0	34.0	55.7	43 5	12.2	15	8.19	93.0	9	10	11	N.	Weather Bureau Dept. Agr.
Fresno.......... "	56.4	80.0	30.0	69.0	43.7	25.3	4	0.39	55.0	19	6	5	N.W.	" " "
Keeler.......... "	51.8	73.0	28.0	61.4	42.3	19.1	1	0 11	42.0	15	8	7	S.W.	" " "
Los Angeles.... "	61 7	90.0	41.0	74.4	49.0	25.4	6	4.40	65 0	21	4	5	W.	" " "
Monterey .... "	57.2	72 0	30.0	----	----	----	----	5.86	----	----	----	----	S.	Southern Pacific Company.
Napa........... "	54.5	82.0	34 0	66.1	45.7	20.4	7	5 30	73.0	20	4	6	N. & S.	Station Napa Insane Asylum.
Oakland .... "	53.5	71 0	38.0	60.8	46 2	14.6	7	5.04	89.0	19	4	7	W.N.W.	Chabot Observatory.
Paso Robles.... "	52.4	79.0	27.0	----	----	----	----	2.06	----	----	----	----	S.	Southern Pacific Company.
Red Bluff....... "	56.0	84.0	30.0	66.0	46.0	20.0	9	7.25	60.0	19	5	6	N.W.	Weather Bureau Dept. Agr.
Sacramento. ... "	55.2	78.0	32 0	67.4	43.1	24 3	7	6.60	66 0	20	4	6	S.E.	" " "
San Bernardino "	57.8	86.0	29.0	73.7	41.8	31.9	6	1.02	54.0	21	5	4	N.W.	A. K. Johnson, M. D
San Diego....... "	60.9	84.0	40.0	69.9	51 9	18.0	3	0.94	67.0	18	6	6	N.W.	Weather Bureau Dept. Agr.
San Francisco.. "	56.9	78.0	42 0	63.8	50.1	13.7	7	3.91	73.0	16	5	9	S.W.	" " "
Santa Barbara.. "	60.2	87.0	42.0	70.9	49.5	21.4	4	4.27	67.0	23	3	4	E.S.E.	Hugh D. Vail.
Santa Cruz...... "	53.7	82.0	32.0	----	----	----	5	5.05	----	18	20	10	W.	W. R. Springer.
Yuma.......... A. T.	63.0	85 0	38.0	78.0	48.0	30.0	0	0.00	33.0	27	3	0	N.	Weather Bureau Dept. Agr.

Blank (----) indicates data missing.

Occidental Medical Times.

COMMUNICATIONS are invited from all parts of the world. When necessary to elucidate the text, illustrations will be furnished without cost to the author.

SACRAMENTO: JANUARY, 1893.

THE COMMENCEMENTS.

The commencement exercises of Cooper Medical College, were held in the auditorium of the college building, on Tuesday evening, December 6, 1892. After prayer by the REV. A. C. HIRST, D. D., the degrees were conferred by DR. L. C. LANE, the President of the college. DR. HENRY GIBBONS, JR., then delivered the valedictory address [published at p. 10]. He alluded to the fact, perhaps not generally recognized, that to California is in great measure due the general advance in the requirements of the colleges throughout the United States. The present medical law was the first measure of the kind, and its influence has been far reaching. DR. GIBBONS also mentioned the growing necessity for better preliminary education, at the same time pointing out its advantages to the student. He emphasized the increasing demands upon the student by stating that a fourth year would soon be added to the college course. DR DAVID STARR JORDAN, President of the Leland Stanford, Jr., University, delivered an address on "The General Training of the Physician" [published at p. 1]. It was mainly a plea for higher general education, and coming as it does from an authority on these matters, deserves careful attention. DR. JORDAN believes that the preliminary course should be thoroughly practical, bearing as much as possible upon the future special education of the student. This is a point, unfortunately, too often lost sight of in our universities, whose conservatism it will take time to change. Were this the rule instead of the exception, marked, according to the speaker, by Johns Hopkins and Cornell, it is certain that a far larger number of students would avail themselves of a privilege that they now cannot spare time to indulge. Doubtless more important than any other would be the effect of this upon the growing evil of the profession—overcrowding. In the interests of self-preservation the situation must soon be faced and a higher standard with lengthened terms is a good beginning.

The following are the names of the graduates: Charles Howe Anderson, Sanya Asano, M. D.; Thomas Edward Bailly, Richard Jones Baily, Frank Austin Bowman, M. A.; George Francis Brackett, Edward

Chappell Brewer, Richard Broderick, Adelaide Brown, B. A.; William Amie Clark, George Dayton Costigan, John Wallace De Witt, Sarah Hughes Graves, Donald McCullough Gedge, William Charles Hassler, Ph. G.; George Walter Hawkins, James Joseph Hogan, William Horsfall, Francis Frederick Knorp, Charles Joseph Koenig, Frank Sumner Lowell, Ida Chadeayne Miller, Ph. B.; Benjamin Allen Mardis, Ph. G.; Anne Wilson Nixon, Fermin Ralph Orella, S. B.; Herbert Morris Pomeroy, Claude Clifford Ryder, Philip Henry Seibel, James Henry Seymour, B. A.; Charles John James Smith, Fred Fellows Sprague, William Norbert Sullivan, Fred Barrington Sutherland, Wilber Maurice Swett, B. A.; Edward William Thomas, Edward Woodland Twitchell, Jefferita Davista Van Den Bergh, George Burwell Wilson.

The total number of students in attendance during the past session was 175; the number of matriculates being 81.

The commencement exercises of the Medical Department of the University of California were held in the Odd Fellows' Hall, San Francisco, on December 15th. After the REV. HOBART CHETWOOD had opened the exercises by reading a portion of Scripture and engaging in prayer, PROF. WASHINGTON DODGE delivered the address on behalf of the Faculty. In his remarks he clearly indicated to the new graduates many of the difficulties which they would encounter in the practice of their profession. and assured them that success could only be attained by steady, constant, and faithful work, with attention to detail even in the most trivial cases. He also referred to the work done by DR. GEORGE K. NUTTALL, a comparatively recent Californian graduate, in relation to the germicidal power of blood when taken from animals that are naturally immune to certain diseases and injected into the circulation of animals that do not possess such immunity.

DR. R. BEVERLY COLE announced that arrangements were now completed for extending the course to four years, and that the new curriculum would commence with students matriculating in 1894. PROF. MARTIN KELLOGG, M. A., Acting President of the University, then conferred the degree of Doctor of Medicine on the members of the graduating class, after which the Hippocratic was administered to them by DR. R. BEVERLY COLE, President of the Medical Faculty.

The following are the names of the graduates: Edward von Adelung, Jr., B. S.; Guido Enrico Caglieri, B. S.; Emma E. Crook, S. J. Fraser, B. A.; Ernest Kinloch Johnstone, Frederick William Lowe, James Francis McCone, B. S.; John Archibald Nelson, George Weston Ogden, William T. Rathbun, Franklin Hardin Sanborn, Lillie Bussenius Schram, Robert L Sutherland, M. D.; Wallace Irving Terry, B. S.

The total number of students in attendance during the past session was 104; the number of matriculates being 47.

SMALL-POX IN SAN FRANCISCO.

During the month of December, three cases of small-pox have so far been reported at the San Francisco Health Office. The first occurred at 331 Turk street. The health officer decided to quarantine the case where found, because the buildings at the Pest House were in no condition for the reception of patients. The Board of Health immediately took steps to provide for the care of any new cases that might occur, and ordered a ward at the City and County Hospital prepared for this purpose. Before the arrangements were completed, a woman was reported sick with the disease at 111½ Minna street. As the surroundings of the woman were unfavorable for quarantine, she was ordered removed to the City and County Hospital. The Superintendent of this institution refused to receive her, on the grouund that accommodations were not ready. He telephoned, however, to one of the Board of Health for instructions, and proposed to place the woman in an election booth, which happened to be in the hospital yard. This was agreed to under the circumstances. The booth was without windows and without means of heating, but these deficiencies were remedied the next morning. A closer investigation of the Pest House showed that it was possible to arrange for the care of a few cases, and, finally, the woman was transferred to this institution. Undoubtedly this patient suffered unnecessary hardships and exposure. The attending physician was at one time seriously alarmed, lest pneumonia should set in as a complication, but by last reports, the woman was doing well.

We have already referred to the shameful condition of the San Francisco Pest House, but the facts will bear repeating. The buildings, for some years past, have been in a miserably dilapidated condition. Recently, owing to an explosion which occurred in the neighborhood, their ruin was almost completed. The institution is maintained on an allowance of $250 a month, of which sum $175 is consumed in salaries. The remaining $75 is supposed to procure food, light, fuel, clothing, and medicines for thirteen inmates and five employes. No provision is made for the reception and care of emergency cases; consequently, every time a contagious disease necessitates removal to the Pest House, the Board of Health is in a dilemma to provide for its care. Nothing can be done, unless the Supervisors choose to appropriate the necessary money, and as most of the city funds are set apart for specific purposes, the civic authorities usually maintain that they have no money that can be used. The present inmates would actually suffer for the necessities of life, did not the City Physician assume a considerable debt on behalf of the place. Of all public institutions, a hospital for contagious diseases should be most completely equipped, and most liberally supported. It should not be deemed a public charity, but a means of public safety, and should be so conducted that neither rich, nor poor, could offer any reasonable objection to becoming inmates when occasion requires.

At the last meeting of the Board of Health, the necessity of immediate action was discussed in strong terms. An appeal was made to the press to assist in showing the needs of the Pest House. It was resolved to demand of the Supervisors, that, at least, temporary measures be provided for emergency cases. As for a new Pest House, the Board appointed a committee to select a proper site, decide upon suitable plans for buildings, and lay the whole matter before the Supervisors.

DR. ELLINWOOD'S FEE.

Recently when the Hobart estate was being settled in Court, DR. C. N. ELLINWOOD, of San Francisco, presented a claim for $30,000 for professional services rendered the deceased millionaire and his wife during their lifetime. The bill was in proper form and was approved by all the parties concerned. JUDGE LEVY, who says he has had no personal experience with the charges of physicians for professional services, however, thought that the amount was unreasonable and excessive, and without further ceremony cut it down to $10,000. This unwarrantable proceeding has naturally aroused the attention of the profession, and its termination will be awaited with much interest. When fees in the legal profession are in dispute, we believe it is the invariable custom to take testimony regarding the justice of the charges. This is done, though the Judge, himself a member of the legal profession, is perfectly familiar with the usual fees. In the present case the Court, while professing absolute ignorance of the subject, neglected to take the only course that would throw any light upon it. As far as we can learn no Court of justice has ever before so interfered to prevent the payment of a physician's fee when the attorneys, the executors, and all the heirs to the estate were satisfied to pay it, and with ample means to do so at command. To the public it might appear that a bill of $30,000 for medical services was a large one, because in this community it is not common. On the other hand, a bill for legal services, involving but little responsibility compared to these two valuable lives, and imposing comparatively little labor and anxiety, upon the lawyer, of double of this amount would excite but little attention; and fees of sixty to one hundred thousand dollars for negotiating mining transactions are paid without comment.

Without entering into the details of the case, it may be said that the services rendered were extraordinary, continuous, and extending for a long period of time, for both patients, attended by frequent emergencies which required to be met, such cases as impose upon a conscientious physician great anxiety, assiduous attention and personal sacrifices. The services were appreciated by both the patients. They were satisfied that their sufferings were relieved and that better medical attention was not procurable. All the heirs and executors were familiar with the circumstances and the character of the services rendered, and all approved the bill without hesitation. They voluntarily told the Court that the fee was reasonable, and that they desired it paid.

The reasons for such unprecedented action are yet *sub judice.* The Judge complained that the bill was presented by the wrong lawyer, but this, which was no fault of DR. ELLINWOOD'S, can hardly be regarded even as a pretext for such a course. The real reason for his action must be a matter of surmise when compared with other decisions where claims against estates, though hotly contested, were allowed.

In the Eastern States medical fees are much larger than on this coast, and the *New York Medical Journal* in commenting on the case refers to an instance where a wealthy lady paid her physician $50,000 annually, and other cases where similar large fees were paid for daily attendance. Dr. MEANS received from JAY GOULD $40,000 a year whether he rendered much or little service, and in the older communities of Europe such services as were rendered in the Hobart case, in a family of equal wealth, would be paid for in two or three times such a sum.

NOTES.

The Vista of Compulsory Notification and Coercive Isolation.

It must sometimes strike the advocates of compulsory notification that their position is hardly a logical one, especially in connection with the limitations of the system. In this connection the following from the *Medical Press and Circular*, which, like ourselves, does not believe in compulsory notification, is so good that we give it *verbatim:* "The notificationists are, like Oliver Twist, asking for more. They have succeeded in bringing the doctors under the yoke and compelling them to notify (or go to jail). (1) small-pox, (2) cholera, (3) diphtheria, (4) croup, (5) erysipelas, (6) scarlatina, (7) typhus, (8) typhoid, (9) relapsing, (10) continued, (11) puerperal fever. One would think this should satisfy them, but no! They want, without further parley, to add: (12) measles, (13) diarrhea, (14) whooping-cough. Furthermore, they are preparing the way for a further outcry for the notification of: (15) syphilis, (16) tuberculosis, (17) ophthalmia, (18) glanders. So far the demands of the coercionists are definitely formulated, but to assist them in further aggressions we venture to suggest that: (19) itch, (20) gonorrhea, (21) coryza, (22) lepra, (23) ringworm, (24) pediculi pubis, (25) ditto capitis, (26) tenia, (27) ascarides; (28) rabies, might as well be added to the list. When the coercionists have added these to the list of notifiable diseases and have provided a group of suitable isolation hospitals ineach parish for the segregation of each class of disease, a staff of quarantined nurses suitable for each form of infective malady, a staff of disinfectors, and an army of police to fetch the patients *vi et armis*, the compulsionists' Utopia will have been realized. For the medical profession there will remain the setting of broken bones and the amelioration of those ailments for which the faddists have not—up to date—discovered a communicable microbe. We do not reserve, for our own benefit, the practice of obstetrics, inasmuch as reproduction, being essentially a contagious disease, will, no doubt, be shortly added to the above notification list, and all infected females will be duly and compulsorily 'isolated.'" We may add that in this country "reproduction" is certainly regarded as a highly contagious disease, and where isolation is impracticable, strict sanitary measures and even antiseptic precautions are very generally adopted during the stage of invasion.

SOCIETY PROCEEDINGS.

SACRAMENTO SOCIETY FOR MEDICAL IMPROVEMENT.

Regular Meeting, November 22, 1892.

The President, G. L. SIMMONS, JR., M. D., in the Chair.

Hepatic Abscess.—DR. G. A. WHITE reported the case of a patient who had been sent to him with a tumor about the size of an orange, situated on the right side. A diagnosis of hepatic abscess was made and pus evacuated by aspiration. The cavity subsequently refilled, when it was freely incised and drained, the patient making a good recovery.

DR. T. W. HUNTINGTON reported at length the case of "Extirpation of Cecum and Intestinal Anastomosis, by Senn's Method" [published at p. 23] to which he had briefly alluded at the previous meeting.

Laparotomy for Supposed Ovarian Tumor.—DR. W. R. CLUNESS reported a case upon which he had performed abdominal section. The patient, a lady 53 years of age, had ceased to menstruate after her 50th year, and since then had complained more or less of abdominal trouble, especially over the left ovarian region. It was not, however, until the past few months that abdominal enlargement became apparent. About four months since she consulted her family physician, Dr. Schlessinger, of Sutter county, and subsequently Dr. Powell, of Marysville. Ten days ago the speaker had visited her, in consultation with the latter gentleman, and, for diagnostic purposes, about half a drachm of the fluid in the abdominal cavity was withdrawn by means of a hypodermic syringe, and was ascertained upon examination to be highly albuminous. The question to be determined was as to whether the fluid was ascitic or cystic. Being evenly distributed throughout the abdominal cavity, and of rapid accumulation, indicated the former condition; but its history, coupled with the highly albuminous condition of the fluid induced the supposition that it might be a monocystic, rapidly developing tumor. At any rate, it was decided that the proper operation to be performed was abdominal section, for which purpose she was removed to "Ridge Home," Sacramento. Aseptic and antiseptic precautions having been carefully observed, about 50 pounds of light, straw-colored fluid were evacuated, and it was readily determined that the fluid was peritoneal, and was due to cancerous degeneration of the omentum and left ovary. So far as could be observed the liver and other abdominal viscera were healthy. The abdominal wound having been closed, and dressed antiseptically, no untoward consequences were anticipated, although the friends were apprised of the true nature of the case and its inevitable fatal issue at no distant day. Reaction became well established within an hour, and her condition was at present good. [Patient subsequently became weaker, and gradually sank dying 7 days after the operation. No autopsy was made.]

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

Regular Meeting, November 8, 1892.

The President, D. W. MONTGOMERY, M. D., in the Chair.

Election of Officers.—The following were elected officers for the ensuing year:

President	H. H. HART.
First Vice-President	W. W. KERR.
Second Vice-President	H. S. SANDERSON.
Recording Secretary	C. C. WADSWORTH.
Assistant Recording Secretary	A. P. WOODWARD.
Corresponding Secretary	L. M. F. WANZER.
Treasurer	W. S. WHITWELL.
Librarian	D. W. MONTGOMERY.
Trustees	H. GIBBONS, JR., W. F. MCNUTT, JAMES SIMPSON.
Committee on Admissions	W. A. ANDERSON, T. B. DE WITT, G. F. SHIELS, J. M. WILLIAMSON, G. W. DAVIS.
Committee on Ethics	JULES SIMON, H. W. YEMANS, F. Z. BAZAN, J. M. MCDONALD, F. W. D'EVELYN.
Committee on Finance	H. M. SHERMAN, G. W. MERRITT, T. J. LE TOURNEUX.
Committee on Publication	C. C. WADSWORTH, D. W. MONTGOMERY, GEORGE H. FULLER.
Executive Committee	H. L. WAGNER, G. H. BARBAT, W. F. CHENEY.

Address of the Retiring President.—DR. D. W. MONTGOMERY, the retiring President, delivered the annual address. He said that the meetings of the past year had been successful and profitable. The Society had lost some members from various causes, amongst which was that ancient one, that the fee-bill was not sufficiently high, and that it showed marked favoritism to the surgeons. This, while true, was, from the nature of things, unavoidable; the services of the physician were less obvious than those of the surgeon, and the latter frequently had it in his power to decide that a certain operation was necessary, and then to collect for it in advance. The speaker then alluded to the disproportion between the fees of lawyers and doctors. This, he thought, was largely due to the following facts: That the former often made a bargain before commencing suit; having won they have the money in their own hands, and can attach it if necessary; that the judge whose word is final is himself a lawyer, and usually sides with his brethren. The speaker closed by alluding to the painful necessity of the Society in having to punish some of its members for defection from the lines of good taste in connection with that "asinine absurdity, newspaper advertising by physicians." He said: "At one of our meetings it was the painful duty of the Society to punish some of its members for defection from the lines of good taste in the matter of making themselves known to the community. When will a certain class of medical men learn that, at any rate, the miserable biographical sketch with photograph kind of advertising, is directly detrimental to them? that they put themselves in the position of George Eliot's turkey-cock, having a desire for admiration, but not knowing well what is admirable; that they make themselves ridiculous with the recital of the little gossipy details of when they were born, their precocious childhood, whom they married, etc.; that these exhibitions of a picayune mind can have only one result: a loss of esteem both by the public and the profession, and a consequent and inevitable loss in fees as well."

Spontaneous Generation of Organic Forms Geologically Considered.—DR. C. G. KUHLMAN read a paper on this subject. He said that the conditions now existing on this planet were decidedly unfavorable to spontaneous generation. When, however, the different geological periods were considered, it was apparent that there had been a time when this earth existed in a condition of fire mist, with a temperature too great for any organic forms to live in. The question, therefore, arose, whence came organic forms except by the combination of their primary elements, under peculiar conditions of heat, light, moisture, and magnetism not now existing on this planet. In conclusion, he thought that during certain retrograde tissue metamorphoses conditions arose that were favorable to the spontaneous generation of certain lowly organized forms.

DR. W. ANDERSON said that the paper was certainly original. At the present time we cannot conceive of spontaneous generation, and he failed to see how it is possible for us to grapple with it to-day.

DR. W. P. GIBBONS said : If by spontaneous generation it is intended to convey the idea that organisms may be produced from nothing, the theory cannot be sustained, for it is impossible to conceive of nothing. If the term be intended to apply to the production of organisms by the energies of nature acting on atoms of matter existing in space, the proposition appears to be tangible. It is conceded by scientists that time was when the earth was a mass of nebulous matter, floating and revolving in space ; that the same physical laws which governed the movements of matter at this time still continue ; that the same elements, which make up the bulk of our earth, were then in existence, but in a diffused and atomized state ; that electrical energy, with its invariable accompaniments of heat and light, was operating on those elements, with the effect of producing carbonic acid, watery ammonia, with oxides of the metals, and other combinations with mineral atoms, which gradually gravitated toward the centre of the nebulous mass, forming rocks in places, and in places oceans of water, which became nursing beds for mosses, and ferns, and fishes, and other organisms, which have left their remains imbedded in the mineral deposits of their era. That these and other organisms originated in the confused and turbulent mass of nebulous matter, we are justified in assuming, from the lights of modern chemistry, and the arguments derived from the steady advance in biological knowledge.

SPECIAL CORRESPONDENCE.

GERMANY.

[FROM OUR OWN CORRESPONDENT.]

The Recent Cholera Epidemic at Hamburg, its Origin, Dissemination, and Rapid Spread.—Clinical Symptoms.—Duration of Infection.—Treatment.—The Uselessness of Quarantine.—Prophylaxis.—Treatment.

It is with feelings of deep relief and gratitude that we are now able to describe the terrible epidemic of cholera which has raged at Hamburg since the end of August, as "recent." An official decree of the first of the present month declares the town to be *seuchenfrei* (plague-free), and, indeed, as far as we can judge, the epidemic is now extinct. The battle is at length won and the enemy is repulsed, but with a heavy loss. Out of a population of about half a million some 18,000 were attacked, and of these between seven and eight thousand succumbed in the course of about two months. Even the official returns published by the Hamburg authorities may possibly not be absolutely correct in consequence of the enormous overwork and confusion naturally prevailing during such an overwhelming catastrophe, but in round numbers this very nearly approaches the truth. It will be unnecessary to enter here into further details of the social misery which has arisen from this dreadful scourge; the destitution into which numbers of families have been cast; the despondency and even panic which seized on all inhabitants of the town at the time the malady was daily increasing in such an appalling manner; the enormous pecuniary loss to the city in general and the sorrow of the bereaved. All this has been sufficiently commented upon already; but if we take to heart the hard lesson which has thus been taught it will not have been in vain, and from evil will come forth good; from thorns, grapes.

How did it all come about? This question so readily asked is as yet not possible to answer in a perfectly satisfactory manner. There can be no doubt in the medically educated mind of to-day that the so-called comma bacillus of Koch is the cause, the *fons et origo* of the disease. Certain it is that the cholera vibrio is found with great regularity in all cases of the disease, and its importance has been further confirmed by experimental research. But how, we ask, was the germ of the disease introduced into Hamburg? During the commencement of the epidemic the opinion prevailed that it was brought by the Russian emigrants who passed through Hamburg on their way to America. This idea has, however, received decided refutation, and, indeed, appears hardly tenable, for the following reasons: Some months before the outbreak of the disorder in Hamburg, the attention of the shipping agents having been directed to its prevalence in Russia, and the danger of its being brought hither by the swarms of mostly impecunious emigrants from those points, it was immediately decided by the Senate to erect spacious barracks for the purpose of lodging all these people pending the time of shipment. Without delay a large building was constructed for this particular purpose, and was already in use by the latter half of July, several weeks before the first appearance of cholera in Hamburg. There was sufficient accommodation here for all, and care was taken that none of the emigrants was allowed to stay in the town itself. The whole construction, though plain enough, was commodious and in good sanitary condition. Special care was directed to the disinfection of the dejecta, and the place was visited regularly by officers of public health. In this way all precautions were taken to prevent the possibility of the disease being propagated from this source. But far from Hamburg having been infected by these people, the fact is that no case of even simple diarrhea appeared among them for more than a week after cases of indisputable cholera had been recognized elsewhere in the town. Nor is it likely that the disease was introduced before the barracks were ready for use. They were inaugurated on the 20th of July, and the first case of cholera was observed on the 16th of August, a period much too long for the malady to have remained latent. On the other hand, cholera prevailed in France, notably at Havre and Paris, for some time before it appeared in Hamburg, and it is quite possible that ships from French ports brought it hither. The first cases announced to the Registrar-General of Hamburg were received by this gentleman (who has since resigned his post in deference to public opinion, which imperiously demanded a scape goat of some kind, with much incredulity, and it is not unlikely that other medical men may have allowed the first cases that came under their observation to go without proper recognition. In short, it will probably never be satisfactorily decided how and when the disease was first introduced.

On the other hand, the enormous increase of the epidemic may be more easily accounted for. The germ theory fully explains the possibility of one person infecting another, and if we accept the all but universally prevailing opinion of the importance of water in this question, a good many difficulties are solved. It is true that one of our very first sanitarians, Professor von Pettenkofer, of Munich, has declared himself not convinced of the correctness of this view. But it certainly has a great deal in its favor. Koch has on a former occasion found the vibrio in water, and recently, Professor Fränkel, his former pupil, has found them in the water of the Rhine canal, near Duisberg, in the vicinity of a barge on which the boatman was suffering from cholera, his dejecta having been carelessly emptied into the water. There can, therefore, be no doubt that the comma bacillus is able to live, and probably multiply, in water. Now, in Hamburg, the water used for drinking, as well as other purposes, is derived from the Elb direct. It is submitted to a certain process of filtration, and then pumped up a high tower, so as to be at a level with the upper stories of all the houses of the town. In the houses, the water is not allowed to flow immediately to the taps, but each house has its special reservoir or tank in one of the upper flats, whence the pipes are fed. Now, of these tanks (*wasserkasten*), an enormous percentage were found, on inspection, to be in a highly reprehensible condition. In most, there was a thick, offensive sediment; in some, carcasses of dead animals, cats, mice, etc., and in one, even the remains of an infant were found. Considering that the weather had been exceptionally hot, and that these tanks, placed just beneath the roofs, were very imperfectly guarded against the heat of the long summer days, they must be admitted to be as suitable hot-beds for the cultivation of germs as need be desired. Possibly, on examination, similar conditions might be found in several other large cities, where the condition of the water is more or less dependent on the discretion of private individuals.

The enormous rise in the number of patients attacked during the first week, from 85 on the 20th of August to 1102 on the 27th, unmistakably points to a wide dissemination of the virus, which can hardly be attained otherwise than through the medium of either air or water. Now, the fact that the air remained practically unchanged except for a certain decrease in temperature, while the condition of the water imbibed by the inhabitants of the city was very materially altered, in consequence of the sanitary precautions that were used, would in itself appear as very nearly conclusive evidence. It has been pointed out that contamination of the water may have been produced by a sudden admixture of salt, due to a collapse of a salt mine in the upper course of the Elb, or rather of one of its tributaries, the Saale; this accident caused a perceptible increase of the percentage of salt, even in the water at Hamburg, and in the Saale it was so great that immense numbers of fish and other river fauna were suddenly killed. But, as former epidemics of cholera have repeatedly occurred without any such accident, much importance cannot be attached to this occurrence. The class of people attacked also indicates ingestion of an avoidable poison. The better situated classes, whose pecuniary condition, as well as their better comprehension of the danger rendered them most capable of avoiding it, were attacked only in comparatively small numbers, while the more ignorant and impecunions yielded by far the greater percentage of cases. A number of articles of food have also been incriminated as propagating the disease, especially raw fruit, cucumbers, and other vegetables. In an infected district, they may certainly be bearers of the bacillus, as likewise butter, if washed with impure water. But all these things may be rendered innocuous by the application of heat, and the chief danger attaching to them will probably lie in the production of disturbances of the digestive tract, if consumed in an unsuitable condition. These disorders of the stomach, however, are among the most powerful predisposing causes, and as such to be carefully avoided.

The clinical symptons have not presented any exactly new features, but seem to tally in general with the observations made in other epidemics. A number of mild cases, however, have been safely diagnosed as such, the diagnosis being confirmed by the detection of the bacillus in the dejecta. Such cases may at other times have been classed as simple diarrhea. Their importance is, however, clearly shown, among other things, by a number of observations, in which cases of quite a mild nature in the person first attacked have given rise to most severe attacks in persons who were in communication as nurses, or otherwise, with the first patient.

A subject requiring special attention, further, is the question of how long a person having recovered from this disease is capable of propagating it. It has been shown that the stools of patients who were to all appearances again in perfect health, have contained the cholera vibrio. Naturally such persons may represent an incalculable danger to their fellow men, and the subject will have to engage our earnest attention.

As regards treatment, the results cannot be described as exceedingly encouraging, in the face of the high mortality reported. Possibly the percentage might appear a little lower if all the mild cases which may have passed under the guise of simple diarrhea were correctly registered But this point, requiring as it does bacteriological investigation, will be always very hard to settle at such a time. Again, the percentage wiil present different figures when the records show how many of the fatal cases have really been rationally treated. Several patients have died before medical aid was brought to bear upon their disorder. People have fallen down dead in the streets, the ambulances have brought numbers, dead or dying, to the hospitals; several have been already in the algid stage when medical aid was called in. Of course, in a complaint like cholera, such occurrences will always be more or less unavoidable, and our chief aim must therefore be directed towards prophylaxis. Here I may perhaps be allowed to explain that quarantine is quite a useless measure, although the faculty in the United States does not appear to be quite agreed on this point. Quarantine has very correctly been called a sieve with wide meshes, which keep back the large particles, but let the little ones pass through. And as quality in this case goes before quantity, the little ones are just as bad and dangerous as the big. The deficiencies of this system have been prctically proved, over and over again. Nor is the explanation hard to find We know that in cholera, as well as in other infectious diseases, there is a period of incubation. At present it has not been definitely ascertained how long this lasts. Hitherto 6 or 7 days have been considered the utmost limit. Strümpell states it at "1—3 days, seldom longer." In this epidemic, however, cases have been noted of persons quitting the infected town and developing the complaint after a lapse of as much as eight or ten days. It is therefore evident that until we are positively certain of the highly variable length of time that germs may be harbored in the human body before they give palpable evidence of their presence, numbers of cases will slip through quarantine in spite of all precautions. Besides, it is certainly about the very best way of producing a hot-bed of infection to keep large numbers of persons confined in a comparatively small compass, and possibly under unfavorable hygienic surroundings, for any length of time. In Germany there has been no real spread of the epidemic in spite of an almost utter absence of quarantining. In England, although no restriction was placed on the traffic with Hamburg, the few cases of cholera which arrived on those shores led to no further development of the disease.

From the remarks made above regarding the etiology of the malady, it is plain that our prophylactic measures must be directed in the first instance to the condition of the water, especially that used for drinking. It has been conclusively shown by experiments carried out by Fränkel and Piefke, at the Berlin water-works, that even the most approved of our modern methods of filtering are not able to produce water that is quite free from germs. At Hamburg, moreover, it has been shown that little cork buoys placed in the Elb, at the spot where the main sewer empties its contents into the river, were carried up by the tide as far as Rothenburgsort, the place above the city whence the water supply is derived. Making due allowance for the process of settling, by which a great deal of infective material may be carried to the bottom, this state of affairs is not satisfactory. As far as possible, the defect has now been remedied by boring artesian wells at numerous spots, and large sums have been voted for a general improvement of the water supply of the city. As a substitute for plain water, a very favorite beverage in the wards of the hospital at Eppendorf was prepared by adding a little muriatic or sulphuric acid to boiled water, which was allowed to cool, and sweetened with a little syrup or sugar. Of this the patients were allowed to drink almost as much as they pleased, and for those in health it is certainly a commendable drink at such a time.

Of other prophylactic measures it will be unnecessary to say much, as they are such as will suggest themselves spontaneously to all physicians on reflection; precautions against indigestion, careful but not too exclusive diet, personal cleanliness and freedom from exaggerated apprehensions are most to be commended. A word of caution may, however, be spoken against the indiscriminate supplying of the public with drugs, without sufficient instructions. In Hamburg great numbers of healthy persons were supplied gratis with little bottles of (1) hydrochloric acid, (2) tincture of opium, and (3) castor oil. With these drugs many patients treated themselves during the commencement of an attack, but only succeeded in aggravating matters considerably and losing much invaluable time before they decided to call in a doctor. Another important matter is the disposal of the excreta. In general, slaked lime, freshly prepared, has been found very serviceable. At the hospital large receptacles were provided, into which all dejecta were emptied with a fair proportion of lime, and the whole thoroughly mixed by means of a lever and paddle continuously passing to and fro. Possibly the Berlin plan is even preferable. There, heat was applied to the mixture of excreta and lime, while the disagreeable odor was perfectly controlled by the addition of permanganate of potash.

As regards the special treatment of cholera cases opinions are somewhat divided. In general, symptomatic treatment by means of tonics seemed to give the best results. Camphor, ether, alcohol in various forms with careful exhibition of morphine and opium are certainly useful. Cantani's method of injecting a hot solution of tannic acid into the rectum has been tried pretty extensively, but it does not appear to have afforded universal satisfaction, although in a number of cases it evidently had a beneficial effect. Anyhow the vibriones are not destroyed by this treatment. The method consists in injecting a hot (105° F.) solution of tannic acid (1—5 ʒ to the litre=35 ℥) by means of an irrigator as far up the bowel as possible. The best position for the patient during the procedure is *à la vache*, on knees and elbows; the injections may be repeated as often as appears necessary. Their chief aim, however, disinfection of the intestinal canal, is clearly not attained, as the irrigated fluid certainly does not pass into the small intestines, and, besides, is not efficient as a germicide. At the hospitals most reliance was placed on intravenous injections of saline solution; in private practice many physicians seem to have done well with hypodermoklysis, which is preferred as requiring less antiseptic precautions. The latter can be performed with a simple Pravaz needle, a piece of gutta percha tubing, and an irrigator. As much as 30 to 35 ounces, or even more may be given at one sitting, by intravenous injection as much as two litres, or rather more than two quarts. This operation is performed as follows: The spot selected is generally the forearm. The apparatus consists of a glass jug to hold the solution, containing about 35 fl. oz., to which is attached an india rubber tube, some eight feet long, interrupted by a few inches of glass tubing and a stop-cock; at the other end of the tube is a silver cannula. After thorough disinfection of the skin at the site of the operation, the vein is laid bare by an incision two or three inches long, and its distal end is tied with a catgut ligature. Another ligature is passed beneath the proximal end, ready for tying. A small opening is then made in the vein, just large enough to insert the cannula, which is pushed in a couple of inches or more, and the second ligature tightened upon it. The jug filled with the solution is then elevated about two, five, or six feet, as occasion requires. The solution should have a temperature of 102° F. when placed in the irrigator. Common salt may be used, a teaspoonful to the jug described, representing approximately the required strength of 0.5-0.6 per cent. The mixture may be rendered alkaline by the addition of a little bicarbonate of soda. When the infusion is completed the cannula is withdrawn, the second ligature tied, and an antiseptic dressing applied. It is often of great benefit to have the operation followed by a hot pack. The patient may be placed in a bath at 103° F. for three to five minutes, and then closely wrapped in blankets for an hour. A very handy apparatus was also used, by which air heated by a gas stove was introduced under the bedclothes, slightly raised by a cradle of hoops, while the patient was lying wrapped up in hot, wet blankets. Most satisfactory perspiration was often produced in this way. The treatment which would *a priori* appear the most rational, is to destroy the germs by the introduction of disinfectants into the intestinal canal, but all attempts in this direction have been more or less unsuccessful. Calomel in large doses, rarely repeated, and followed by the administration of opium, has yielded good results in a large number of cases. But creolin and all the host of modern antiseptics appeared to do more harm than good.

CORRESPONDENCE.

The Antiseptic Dropper.

Sir: I notice in a recent number of the *Medical News* a communication from Dr. George M. Gould on "The Antiseptic Dropper, a New Device." The dropper and bottle are excellent devices in which to keep solutions for office work, as they can be readily sterilized and protect the solution as well as possible from the dust. Such bottles and droppers have been in use in the Vienna clinics and other places for some time—in fact I brought a number home with me on the occasion of my recent visit there. I am glad to know, however, that they will be made in this country, as they are the most cleanly way of keeping eye-drops for constant use. They are simply small bottles, the glass stoppers of which are made into droppers, Their being described as a new device and an original invention is the strangest part of the communication. I am, etc.,

SACRAMENTO, CAL. WM. ELLERY BRIGGS, M. D.

REVIEWS AND NOTICES.

W. B. SAUNDERS, the Philadelphia publisher, encouraged by the success of the "American Text-book of Surgery," now proposes to issue "An American Text-book of the Medical and Surgical Diseases of Children." A formidable list of names is presented, and we feel certain that the proposed work will maintain the high standing of its precursor. We understand that Senn is now preparing a syllabus of his lectures on surgery, and that this will soon be ready for publication.

THE PHYSICIANS' VISITING LIST FOR 1893—42d year of publication. Philadelphia: P. Blakiston, Son & Co.

This familiar visitor comes to us in its accustomed form, with the additions that the enterprise of the publishers add from year to year. On this occasion the principal innovation consists in a very complete dose table in both English and metric systems. This very timely aid has been demanded from the fact that the new pharmacopeia will use only the metric system. The usual amount of valuable and interesting matter will be found. Each visiting list has its advocates, whom familiarity has led to look upon their favorite as the best. Continued experience impels us to state that the "Physicians' Visiting List" has no superior, and that the physician adopting it will have no cause to regret his selection.

A MANUAL OF CLINICAL DIAGNOSIS. By Albert Abrams, M. D., Adjunct to the Chair of Clinical Medicine and Demonstrator of Pathology, Cooper Medical College, Pathologist and Assistant Physician City and County Hospital, San Francisco, etc.

A second edition of this most valuable little book has been demanded through the exhaustion of the first. In his preface the author states that this is but a revision of the first, the time that has elapsed being too short to admit of new material being added. The little volume is more concise and complete than any upon this subject with which we are acquainted. The student or the practitioner cannot find a better investment than its 208 pages present.

MEDICAL NEWS.

LICENTIATES OF THE BOARD OF EXAMINERS.

At a meeting of the Board of Examiners, held December 22, 1892, the following physicians, having complied with the law and the regulations of this Board, were unanimously granted certificates to practise medicine and surgery in this State:

Chas. H. Anderson, Santa Cruz; Cooper Med. Coll., Cal., Dec. 6,'92.
Richard J. Baily, San Francisco; Cooper Med. Coll., Cal., Dec. 6,'92.
Thos. E. Bailly, San Francisco. Cooper Med. Coll., Cal., Dec. 6,'92.
T. R. Baldridge, Los Angeles; Med. Coll. of Ohio, March 7,'88.
Camillo Barsotti, San Francisco: Royal Univ. of Florence, Italy, March 13,'87.
Florence A Belknap, Hanford; Med. Dept. Univ. Michigan, July 1,'86.
Geo. F. Brackett, San Francisco; Cooper Med. Coll., Cal., Dec. 6,'92.
Paul H. Bresse, Los Angeles; Coll. Med. Univ Southern California, May 25,'92.
Richard Brodrick, San Francisco; Cooper Med. Coll., Cal., Dec. 6,'92.
Adelaide Brown, San Francisco; Cooper Med. Coll., Cal., Dec. 6,'92.
Wm. A. Bryant, San Francisco; Cooper Med. Coll., Cal., Nov. 1,'84.
Gideon S. Case, Pasadena; Med. Dept. Univ. Michigan, March 30,'70.
Wm. V. Coffin, Whittier; Miami Med. Coll., Cincinnati, O., March 1,'80.
Alexander Davis, Los Angeles; Baltimore Med. Coll., Md., March 23,'92.
Herbert DeLoss, Pomona; Rush Med. Coll., Ill., Feb. 21,'88.
Geo. R. Edwards, South Los Angeles; Med. Dept. Univ. Wooster, O., Jan. 31,'83.
Donald McC. Gedge, San Francisco; Cooper Med Coll., Cal., Dec. 6,'92.
Victor Gjurkoveeki, San Jose; Univ. of Vienna, Austria, Dec. 7,'81.
Sarah H. Graves, San Francisco; Cooper Med. Coll. Cal., Dec. 6,'92.
B. G. Guthrie, San Francisco; Med. Dept. Univ. Pa., March 14,'67.
Edward J. Hadfield, Napa; Jefferson Med. Coll., Pa., April 2,'90.
Laura A. Harris, San Jose; Med. Dept. Willamette Univ., Or , April 7,'92.
Geo. W. Hawkins, San Francisco; Cooper Med. Coll., Cal., Dec. 6,'92.
Joseph J. Henderson, Elko, Nev.; Med. Dept. Univ., Mich., June 25,'91.
Edward B. Herrick. San Francisco; Med. Dept. Univ. City of New York, March 11,'92.
James J. Hogan, Vallejo; Cooper Med. Coll., Cal., Dec. 6,'92.
Wm. Horsfall, San Francisco; Cooper Med. Coll., Cal., Dec. 6,'92.
Chas. J. Koenig, San Francisco; Cooper Med. Coll., Cal., Dec. 6,'92.
Leslie C. Lane, San Francisco; Rush Med. Coll., Ill., Feb. 21,'77.
Andrew J. Lappeus, Prescott, A. T.; N. W. Med. Coll., St. Joseph, Mo., Feb. 24,'87.

Frederick W. Lowe, Knight's Ferry; Med. Dept. Univ. Cal., Dec. 13,'92.
Frank S. Lowell, Oakland; Cooper Med. Coll., Cal., Dec. 6,'92.
Chas. A. MacDonell, Los Angeles; Rush Med. Coll., Ill., Feb. 16,'75
Ida C. Miller, Ph. B., San Francisco; Cooper Med. Coll., Cal., Dec. 6,'92.
Rolland E. Miller, Napa; Med. Dept. Univ. City of New York, March 6,'92.
James H. Neagle, Los Angeles; Louisville Med. Coll., Ky., Feb. 26,'76.
Herbert M. Pomeroy, Los Angeles; Cooper Med. Coll., Cal., Dec. 6,'92.
Palmer R. Reynolds, Santa Ana; Med. Coll. Univ. Southern California, May 25,'92.
C. C. Ryder, San Francisco; Cooper Med. Coll., Cal., Dec. 6,'92.
W. G. Scott, Los Angeles; Cincinnati Coll. Phys. and Surg., O., Feb. 12,'62.
Chas. J. J. Smith, San Francisco; Cooper Med. Coll., Cal., Dec. 6,'92.
F. B. Sutherland, San Francisco; Cooper Med. Coll., Cal., Dec. 6,'92.
Wilber M. Swett, San Francisco; Cooper Med. Coll., Cal., Dec. 6,'92.
Edward W. Thomas, San Francisco; Cooper Med. Coll., Cal., Dec. 6,'92.
J. D. Van Den Bergh, San Francisco; Cooper Med. Coll., Cal., Dec. 6,'92.
F. W. Vowinckle, San Francisco; Univ. of Berlin, Germany, Aug. 5,'85.
James T. Wayson, San Francisco; Med. Dept. Univ. California, Nov. 10,'91.
F S. Williams, Los Angeles; Detroit Med. Coll., Mich., March 10,'81.
Wm. N. Williams, San Jose; Coll. Phys. and Surg., Keokuk, Ia., Feb. 28,'82.
Adam D. Wilson, Fowler; Univ. of Edinburgh, Scotland, Aug. 2,'86.
Jane Wynne, San Francisco; Royal Coll. Surg., Ireland, June 2,'92; Royal Coll. Phys., Ireland, June 3,'92; Rotunda Hospital, Dublin, Ireland, April 4,'92.

CHAS. C. WADSWORTH, Secretary.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the U. S. Army (Division of the Pacific), from November 20, 1892, to December 20, 1892.

The journeys performed by First Lieutenant C. W. Mason, Fourth Infantry, and First Lieutenant William E. Purviance, Assistant Surgeon, from Wallace to Wardner, Idaho, and return, on public business, in obedience to orders No. 21, Battalion Fourth Infantry, Wallace, Idaho, November 10, 1892, are confirmed. Par. 2, S. O. 183, Dept. of the Columbia, Nov. 22, 1892.

In obedience to telegraphic instructions, from the War Department, Colonel Joseph R. Smith, Assistant Surgeon General, will proceed to Whipple Barracks, A. T., on official business, and on completion thereof will retnrn to his station in this city. Par. 1, S. O. 120, Dept. of the Columbia, Nov. 25, 1892.

The journey performed by First Lieutenant P. G. Wales, Assistant Surgeon, about Nov. 15, 1892, returning from duty in the field near Lordsburg, N. M., to his station, Fort Bayard, N. M., in obedience to orders No. 248, c. s., Fort Bayard, N. M., is approved and confirmed. Par. 1, S. O. 156, Dept. of Arizona, Dec. 1, 1892.

Upon the recommendation of the Medical Director of the Department, First Lieutenant Charles Willcox, Assistant Surgeon, will report to the commanding officer, Presidio of San Francisco, for temporary duty at that post until the departure from Angel Island, Cal., of Major William H. Gardner, Surgeon, under the provisions of par. 13, S. O. 277, c. s., Hdqs. of the Army, when he will proceed to Angel Island and report to the commanding officer of that post for temporary duty. Par. 1, S. O. 124, Dept. of California, Dec. 6, 1892.

Captain Louis Brechemin, Assistant Surgeon, will, until further orders, report at the rendezvous in this city, at 10 o'clock A. M., daily, Wednesdays and Sundays excepted, and attend at the rendezvous until 1 P. M., or such less time as may be necessary for examination of recruits presented by the recruiting officer; upon completion of the duty required each day, Captain Brechemin will return to his station, the Presidio of San Francisco, Cal. S. O. 73 and 108, c. s., from these headquarters, are modified accordingly. Par. 2, S. O. 129, Dept. of California, Dec. 17, 1892.

The ordinary leave of absence granted Captain Eugene L. Swift, Assistant Surgeon, is changed to leave of absence on surgeon's certificate of disability, as extended as such two months.

Major William A. Gardner, Surgeon, is relieved from further duty at Angel Island, Cal., and will report in person to the commanding officer, Fort Keog, Montana, for duty at that post.

Captain Henry P. Birmingham, Assistant Surgeon, is relieved from duty at Boise Barracks, Idaho, to take effect upon the expiration of his present leave of absence, and will then report in person to the commanding officer, Fort Grant, A. T., for duty at that post.

A Board of Officers, to consist of Colonel Joseph R. Smith, Assistant Surgeon General, Major David L. Huntington, Surgeon, and Major Benjamin F. Pope, Surgeon, is, by direction of the President, appointed to meet at Whipple Barracks, Arizona, on Monday, November 28, 1892, or as soon thereafter as practicable, for the examination of Captain Louis M. Maus, Assistant Surgeon, with a view to determining his fitness for promotion.

ITEMS.

Dr. G. E. de Schweinitz has been elected clinical professor of ophthalmology in the Jefferson Medical College, of Philadelphia.